



November 2013

Lactarius Notebook 12

L. R. Hesler

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LACTARIUS CROCEUS Burlingham

Torrey Bot. Club Mem. 14:37. 1908

ILLUSTRATION:

Burlingham, Torrey Club Mem. 14, fig. 3.

Pileus 5-10 cm broad, broadly convex-umbilicate, spreading, saffron-yellow to orange-cadmium (49) (Repertoire de Couleurs), subzonate or azonate(?) expallent, glabrous, very viscid, margin involute and pruinose-dawny at first, glabrescent. Context brittle, whitish, staining yellow-cadmium where cut; odorless. Latex white, slowly becoming yellow-cadmium, acrid.

Lamellae adnate, pallid then honey-yellow (35), at length yellowish-buff (310. t. 1), becoming cadmium where cut or bruised, seldom forking, rather distant or subdistant, medium broad (5-6 mm).

Stipe 5 cm long, up to 16 mm thick, concolorous but paler, spotted, glabrous, base sometimes tomentose, stuffed then hollow.

Spores 7.5-9.5 x 6-7(7.5) μ , ellipsoid, warts 0.3-0.5 μ , ellipsoid, warts 0.3-0.5 μ high, with a reticulum of broad bands. Basidia 30-35 x 6-8 μ , 4-spored. Pleurocystidia (28) 42-74 x 4-7 μ , ventricose, subulate, subcylindric, often constricted (more or less moniliform), apices tapering, granular; cheilocystidia 26-33 x 4-5 μ , clavate, ventricose, obclavate, granular. Gill trama cellular. Pileus trama vesiculose. Pileus cuticle a gelatinous zone; no pileocystidia. Stipe cuticle an ixocutis; caulocystidia 22-60 x 3-5 μ , filamentous, slightly constricted, in tufts. Clamp connections none.

HABIT, HABITAT, AND DISTRIBUTION - On soil, in deciduous woods, North Carolina and Virginia, July-September.

MATERIAL STUDIED - NORTH CAROLINA: Burlingham 48, type (NY), from Pisgah Forest, August, 1907; PENNSYLVANIA: Overholts (Tenn-16689), July.

OBSERVATIONS - This is distinguished by its orange-cadmium, viscid pileus, rather distant gills which become yellow-cadmium where bruised. The latex is scanty, and the change in color of it is detected by the change in color of the wounded context and gills. It differs from L. chrysorheus in its different spore-ornamentation, smaller basidia, subdistant gills, and its much darker subzonate pileus.

LACTARIUS CROCEUS Burl.

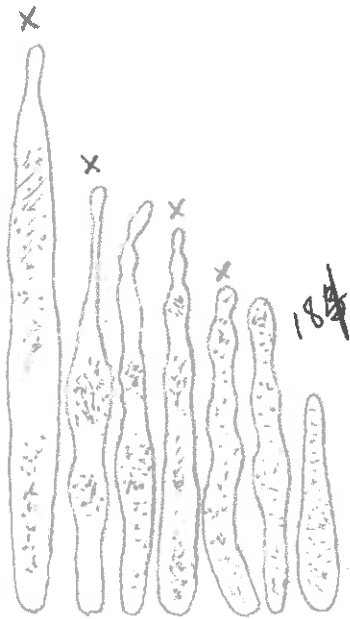
Pisgah Forest, North Carolina, August, 1907

Type

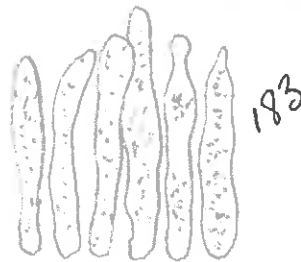
Spores 7.5-9.5 x 6-7(7.5) μ , ellipsoid, warts ~~0.1-0.15~~ 0.3-0.5 μ high, with a reticulum of broad bands. Basidia 30-35 x 6-8 μ , 4-spored. Pleurocystidia (28) 42-74 x 4-7 μ , ventricose, subulate, subcylindric, often constricted (more or less moniliform), apices tapering, granular; cheilocystidia 26-33 x 4-5 μ , clavate, ventricose, obclavate, granular. Gill trama cellular. Pileus trama vesiculose. Pileus cuticle a gelatinous zone, an ixocutis; no pileocystidia. Stipe cuticle an ixocutis; caulocystidia 22-60 x 3-5 μ , filamentous, slightly constricted, in tufts. Clamp connections none.

Differs from Lactarius chrysorheus in its different spore-ornamentation, smaller basidia, subdistant gills, and its much darker, subzonate pileus, and in pleurocystidia (see Brittonia 12:337).

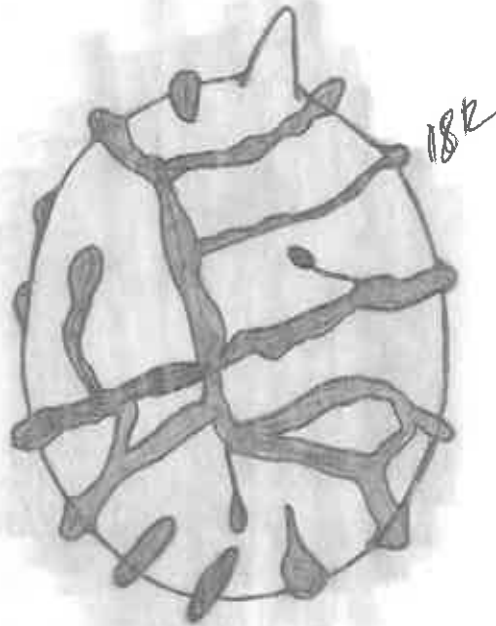
Sactarius croceus Barcl. Type



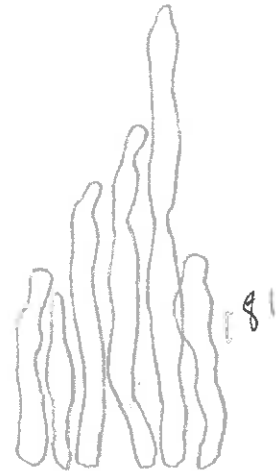
Sp - x 1000



Ch - x 1000



Spore - x 8000



Caulo - x 1000

Murrill - 296

LACTARIUS CROCEUS Burl.

In deciduous woods, Blacksburg, Virginia, July 27 - August 3, 1904 (ex-
Herb. N.Y.B.G.)

Paratype

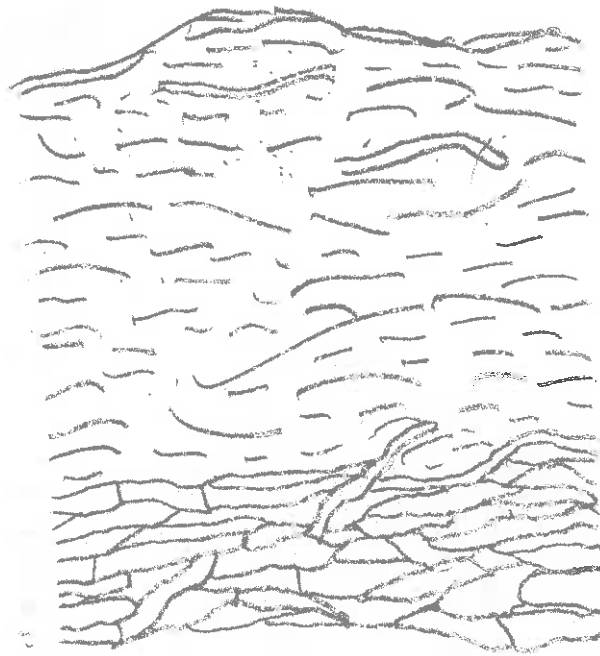
Spores 7-9 x 5.5-7 μ , warts 0.3-0.5 μ , bands forming a partial or sometimes complete reticulum. Pleurocystidia 38-72 x 4-6 μ , scattered, subcylindric or subfusoid, acuminate; cheilocystidia 26-32 x 4-5 μ , similar, scattered. Pileus cuticle an ixocutis; no hypoderm. Stipe cuticle an ixocutis, sometimes not sharply delimited; no hypoderm.

The type was requested again in 1969, but Rogerson then stated that it could not be found; but, that he was sending the paratype, cited in the original description - which is Murrill 296, see notes above.

See notes on Type, studied many months earlier than the Paratype.

Lactarius croceus Burt.

Murill - 296 (Paratype)



Pileus ixocentris - x 1000

Sm-14902

LACTARIUS CROCEUS Burl.

Cades Cove, Tennessee, August 20, 1939

Spores in deposit yellowish, 7-9 x 5.5-7(7.5) μ , ellipsoid, warts 0.2-0.5 μ high, more or less reticulated, a few warts isolated, bands with some free ends and a few fine lines. Pileus cuticle an ixocutis; no hypodermium. Stipe cuticle an ixocutis; no hypodermium. Pleurocystidia and cheilocystidia as in Type.

16689

LACTARIUS CROCEUS Burl.

From Huntingdon Co., Penn., ex-herb. Overholts, July 21, 1942

Spores 8-10 x 6-7 μ , ellipsoid, reticulate, warty, warts 0.5 μ high.
Pleurocystidia fusoid, 40-48 x 5-10 μ ; cheilocystidia clavate, 20-28 x
4-5 μ . Pileus cuticle an ixocutis, 80-120 μ thick; hypoderm none.
Stipe cuticle an ixocutis; hypoderm none.

22031

LACTARIUS CROCEUS Burl.

In deciduous woods, Blue Ridge Parkway, North Carolina, July 30, 1958

Pileus 5-10 cm broad, convex, deeply depressed, viscid, obscurely or not at all zonate, "light ochraceous buff" when young, in age "orange buff" to "capucine orange," glabrous, margin incurved, even. Context white, stained golden yellow by latex, rather thick on disk, thin on margin; odor mild, taste acrid-bitterish. Latex acrid, white, unchanging but drying greenish-yellow on flesh and gills.

Lamellae adnate to subdecurrent, whitish, soon "orange buff," nearly subdistant, broad (9-12 mm), tapering both ways, many short, some forking at base.

Stipe up to 8 cm x 20 mm, "light ochraceous buff," viscid, glabrous, equal, stuffed then hollow, base slightly curved, at times spotted.

Spores 7-9.5 x 6-7.5 μ , ellipsoid, reticulate-verrucose, warts 0.5-0.6 μ high. Pleurocystidia 60-80 x 6-11 μ , fusoid to subventricose, at times few; cheilocystidia clavate, cylindric, subfusoid, or subventricose, 30-42 x 4-7 μ . Gill trama of vesiculose cells and interwoven hyphae; subhymenium of small, irregular cells. Pileus cuticle an ixocutis, 40-250 μ thick, of slender interwoven hyphae. Stipe cuticle an ixocutis; rosettes none. Clamps none.

23090

LACTARIUS CROCEUS

Blue Ridge Parkway, North Carolina, July 30, 1958

Spores as in 22031. Pleurocystidia and cheilocystidia moderately abundant, cylindric to subfusoid, often acuminate, but at times obtuse, granular. Pileus cuticle an ixocutis; hypoderm none. Stipe cuticle a thin ixocutis; hypoderm none. Clamp connections none.

35871

Orsella
LACTARIUS ~~SUBCROCEUS~~ sp. nov.

In deciduous-hemlock woods, Crib Gap, Cades Cove, July 29, 1971

Pileus 3-5 cm broad, "orange-buff," faintly zonate, viscid, glabrous, margin even. Latex white, drying and staining yellow, acrid.

Lamellae adnate, concolor or paler, nearly subdistant, rather broad, few forking behind, lamellulae widely scattered.

Stipe 2-3 cm long, 4-6 mm thick, concolor or paler, viscid, solid, equal, not spotted.

Spores in deposit: "cream buff," $5.5-7.5(8) \times 5-6 \mu$, warts $0.2-0.3 \mu$ high, bands and branches forming a partial reticulum. Pleurocystidia $42-60 \times 5-7 \mu$, slender/-ventricose, scattered; cheilocystidia $24-35 \times 4-6 \mu$, similar. Pileus cuticle a distinct ixocutis, with hyphal mounds at close intervals; hypodermium present. Stipe cuticle an ixocutis; rosettes present.

Near L. croceus, in which the spores are larger ($7.5-10 \mu$ long) and stipe scrobiculate.

Saxatulus ~~heterocentrus~~ sp. nov.

35871



Sp $\times 1000$



Ch $\times 1000$



Spae $\times 8000$

LACTARIUS CURTISII Coker var. curtisii

On soil, in pasture with small pines, west of Sparrow's Mill, Chapel Hill, N. C., leg. H. R. Totten, det. Coker-1845, September 19, 1915.

Type - Coker-1845

(The basidiocarps are in poor condition for study. The lamellae have all been eaten away by an insect.)

Spores - none found. Pileus cuticle of repent hyphae. No pileocystidia. Pileus trama vesiculose, with scattered hyphae. Lactifers 4-6 μ broad. Clamps none. Caulocystidia none.

LACTARIUS CURTISII Coker *var. curtisii*

In grass, under pines, Chapel Hill, N. C., leg. Totten, No. 1437,
October 28, 1914.

(Gills mostly devoured by insects)

Spores 7-8.5(9) x 5-6 μ , ellipsoid, warts 0.2-0.5 μ high, with more or less continuous bands and some fine lines. Pleurocystidia and cheilocystidia none (a few gill-fragments found and sectioned). Cuticle of repent hyphae. Pileus trama vesiculose (~~repent~~).

LACTARIUS CURTISII

East of Piney Prospect, Chapel Hill, N. C., same station as No. 1437,
leg. H. R. Totten, No. 1857, September 22, 1915

(All specimens badly eaten by insects. Gills devoured.)

Spores and cystidia not found. Cuticle of repent hyphae; no
pileocystidia. Pileus trama vesiculose (~~not duplex~~).

LACTARIUS CURTISII Coker

No. 1293 (1364), from Curtis' Collection, Farlow Herbarium,
labelled (strangely enough!) Lactarius camphoratus, Society Hill,
S. C. It appears to be L. curtisii.

Spores and other characters as in Curtis' Collection, No.
2883 (see my notes.)

LACTARIUS CURTISII Coker

No. 2883, from Curtis' Collection, ^{from South Carolina} Farlow Herbarium, Harvard University, labelled: (2883) *Lactarius deliciosus* var. l. n.sp. (Two basidiocarps attached to a piece of paper, with descriptive notes, essentially as given by Coker, p. 42, Jour. Elish. Mitch. 34)

Notes on Collection

Spores 7-8.5(9) x 5-6 μ , ellipsoid, somewhat inequilateral in profile, warts short (0.2-0.4 μ), with rather broad and narrow bands forming a reticulum. Basidia (unsuitable for study). Pleurocystidia and cheilocystidia none. Gill trama cellular, with brownish lactifers. Pileus trama vesiculose. Cuticle of repent hyphae, not sharply differentiated from the pileus trama; pileocystidia none. (Stipe not sectioned; material meager.)

L. curtisii differs from L. salmoneus in its (curtisii) glabrous pileus, lack of pleurocystidia and cheilocystidia, latex peppery (mild in age).

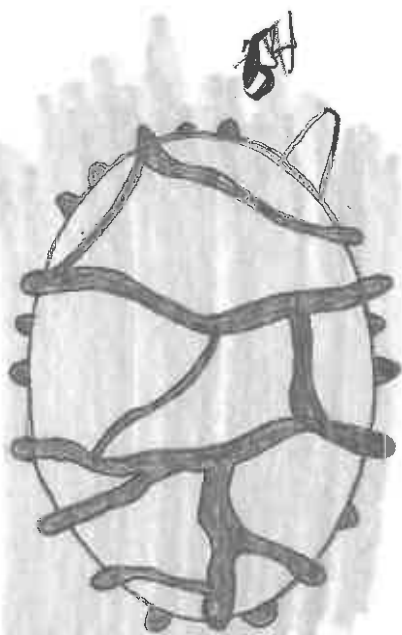
Lactarius curtisii Coker var. *curtisii*

2883-ex-Herb. Farlow. Labelled *Lactarius deliciosus* var.
Santee Canal, S.C., Lavenel-982.

Pl. 0

Ch 0

Piles 0



Spore - x 8000

[Caulo: stipe not
sectioned; material
scanty]

Thiers - 6150

salmonum
LACTARIUS ~~CURTISII~~ Coker var. CURTISII (Coker) comb. nov.

Near Van Cleave, Mississippi, June 11, 1959

Notes by Thiers

Cap whitish-yellow with pinkish overcast, dry, glabrous to subtomentose, not zonate. Latex orange, staining lamellae greenish.

Lamellae colored near ochraceous orange, subdistant.

Stipe orange.

Notes by Hesler

Spores 6-7.5(8) x 5-6 μ , warts 0.2 μ or less, bands forming a partial or no reticulum. Pleurocystidia none; cheilocystidia few, subfusoid, 22-28 x 3-4 μ . Pileus cuticle repent, dry. Stipe cuticle, dry, repent, bearing caulocystidia; rosettes none.

~~Micro characters somewhat as in Sm 69746, which may be a variety of curticoides.~~

Thiers - 6340

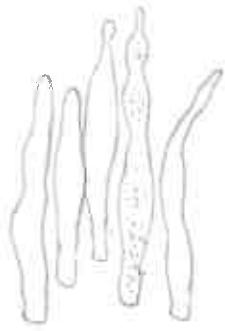
salmonens var.
LACTARIUS CURTISII ~~Thiers~~ (Tokoy) comb. nov.

DeSoto National Forest, near Biloxi, Mississippi, June 15, 1959

Spores 6-8 x 5-6 μ , warts about 0.2 μ or less. Pleurocystidia none; cheilocystidia 26-38 x 3-5 μ , subfusoid to subclavate, apices tapering, and at times constricted, scattered and neither abundant nor conspicuous. Pileus cuticle dry, repent.

Same as Thiers - 6150, except: what of stipe color?

^{-salmonaceus, rar.}
Pastarinus curtus (rar.?)
Thiers-6340



Ch - x 1000

Held for more information
occidentalis var. nov. ?

Sm-69746

LACTARIUS CURTISII var. ~~Sm-69746~~

Burgdorf, Idaho, August 25, 1966 (labelled L. deliciosus).

Notes by Smith

Pileus pale pinkish pallid, appearing matted-fibrillose, margin slightly cottony, stains rusty brown on edge. Latex carrot-colored.

Gills close, narrow.

Stipe pallid, frosted, carrot-colored beneath.

Smith says "nearest thing to L. curtisii in Idaho."

Notes by Hesler

Spores 6-7.5(8) x 5-6 μ , ellipsoid to subglobose, warts 0.2 μ or less in height, with a few bands and lines, rarely forming a reticulum, some warts isolated. Basidia 42-47 x 7-8 μ , 4-spored. Pleurocystidia none; pseudocystidia filamentous, scattered, brownish; cheilocystidia 28-35 x 2-5 μ , fusoid or subfusoid, more rarely with a long slender neck (more or less appendiculate), granular. Gill trama of small cells. Pileus trama vesiculose. Cuticle of pileus of repent, dry hyphae. Stipe cuticle of dry, repent hyphae, bearing scattered to gregarious caulocystidia 30-55 x 3-4 μ , filamentous, rarely subcapitate or ventricose. Clamp connections none.

This is not ~~*L. deliciosus*~~ *deliciosus*; it is very near *curtisii*, but has fusoid or subfusoid cheilocystidia and spores rarely with a reticulum.

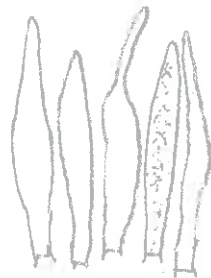
Ractarius curtisii var. *occidentalis* var. nov.

Sm-69746 - Type

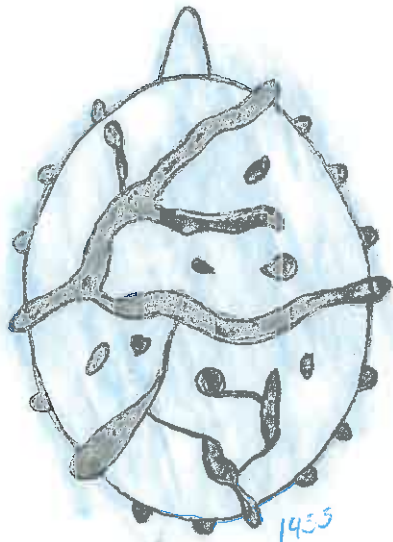
Seil. Koet.



Pseudo -
x 10000



Ch - x 1000



Spore - x 8000



Caulo -
x 1000

Orinus Cellulosa

LACTARIUS CYATHULA (Fr.) Fr.

Epicr. Myc., p. 344. 1838

Agaricus cyathula Fr., Syst. Myc. 1:66. 1821.

ILLUSTRATIONS:

Pileus 10-25 mm broad, at first plane, then depressed to infundibuliform, dry, papillate, reddish to reddish brown, tawny-reddish with a flesh-tint, sometimes becoming areolate, margin transparent-striate to the disc, at times the extreme margin grooved. Context odor mild, taste mild, or sometimes slightly bitterish. Latex white, unchanging, not staining, taste mild.

Lamellae adnate, at first pallid or pale ocher, becoming pale brownish cream, rather close, narrow, often forked.

Stipe 2-3(4) cm long, 1.5-3 mm thick, pallid, becoming rufous from the base up, finally dark reddish brown, hollow, dry.

Spores 7.5-10.5 x 6.5-8 μ , ellipsoid, warts 0.2-0.6 μ , bands and branches forming a partial to more or less complete reticulum. Pleurocystidia 44-67 x 5-7 μ , slender-ventricose-acuminate; cheilocystidia 23-30 x 3-4 μ , similar. Gill trama of narrow, subparallel hyphae. Pileus cuticle a cellular zone, at intervals with low mounds of irregularly-shaped cells, often bearing scattered clavate to ventricose pileocystidia; hypodermium brownish. Stipe cuticle a zone of repent, brownish, narrow, perpendicular hyphae, with scattered cylindric to clavate caulocystidia; rosettes present. Clamp connections none.

Omit
not recognized
by Kienhoff

HABIT, HABITAT, AND DISTRIBUTION - On soil, under birch, alder, willow, Europe, July-September.

MATERIAL STUDIED - DENMARK: Petersen (TENN 35736); ^{THE}NETHERLANDS: Bas 1042 (TENN 35604), 1532 (TENN 30274), 4634 (L); SCOTLAND: Watling 6877 (E).

OBSERVATIONS - The distinctive characters of L. cyathula sensu J. Lange, include its papillate, reddish brown, long-striate pileus; its watery-white, mild latex which does not stain the lamellae; moderately large spores with warts 0.2-0.6 μ high, and bands forming more or less of a reticulum. ~~It is near L. tabidus (which see for distinctions).~~ Although it has been confused with L. paludinellus, this species differs from L. cyathula in its viscid pileus cuticle, and smaller spores.

Bas - 4634

LACTARIUS CYATHULA (Fr.) Fr.

In damp forest of Alnus, Salix, Zuid Holland, August 17, 1966.

(No notes) (*specimen at Leiden*)

Notes by Hesler

Spores 7-9.5 x 6-7.5 μ . Basidia 41-47 x 9-11 μ , 4-spored.

Otherwise as in Bas - 1042.

Watling - 6877

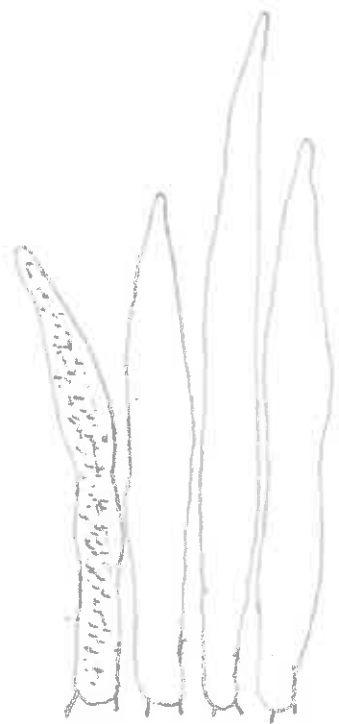
L. tabidus
LACTARIUS CYATHULA

Under Alnus, Scotland, ex-Herb. Edinburgh, September 12, 1959. (collection at Edinburgh)

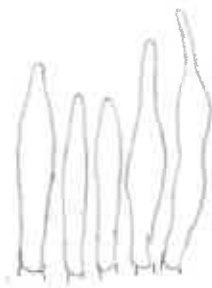
Spores $7-8.5 \times 5.5-6.5(7) \mu$, ellipsoid, warts $0.3-0.8 \mu$ high, bands and a few lines forming at most only a partial reticulum. Basidia $38-43 \times 8-10 \mu$, 4-spored. Pleurocystidia $62-93 \times 7-10 \mu$, subfusoid to nearly cylindric, apices tapering, granular conspicuous but very widely scattered (absent in most sections); pseudocystidia filamentous; cheilocystidia $23-35 \times 3-5 \mu$, subfusoid, apices subacute or with a neck, scattered, inconspicuous. Gill trama of small and large irregularly shaped cells. Pileus trama vesiculose. Pileus cuticle a cellular zone, cells globose to irregular, rather variable in size, surface with scattered pileocystidia, $20-35 \times 8-12 \mu$, ventricose, clavate. Stipe cuticle of repent hyphae, with scattered or gregarious caulocystidia, clavate-cylindric, small and inconspicuous; rosettes present. Clamps none.

Coker says this is same as L. paludinellus Pk. But, the cuticle-structure of the two is different! The spores of the two, however, are quite similar.

Factorius cyathula
Watling - 6877

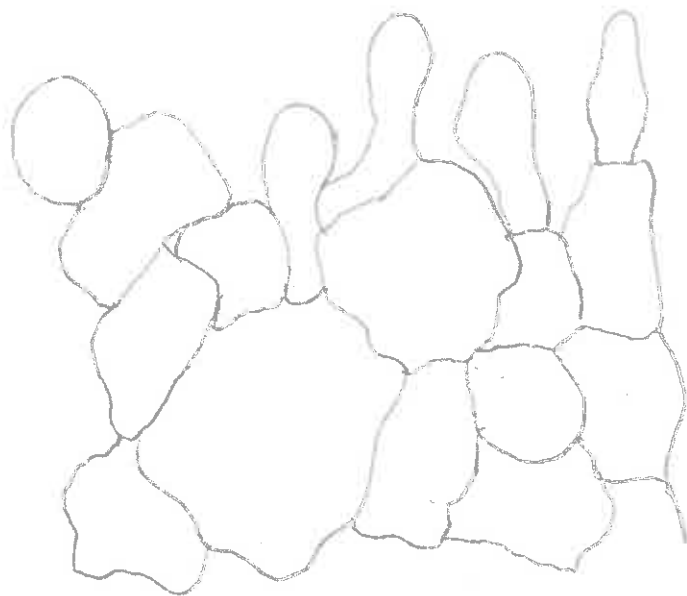


Pl. x 1000



Ch - x 1000

[Specimen similar
to paludimellus]
see Bas-1042



Pileus cuticle - x 1000

(Tenn-30274

Bas - 1532)

LACTARIUS CYATHULA (Fr.) Fr. sensu Lange

In moist Alnus-Betula-Salix forest, on humus, Noord Holland,

September 17, 1958

Notes by Bas (Transl. by Donk)

Cap 8-20 mm, red as in Laccaria laccata, when young always with a dark orange pointed wart, older fruit bodies transparent-striate. Taste mild. Latex white, not copious, mild.

Stalk 16-31 x 1-2(-3) mm, concolor or darker brown-red.

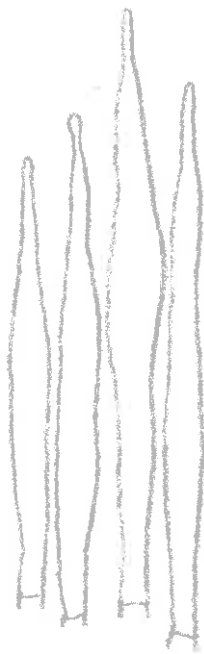
Spores with small warts occasionally with a few lines, rarely with rather numerous lines and the initial of a reticulum.

Notes by Hesler

Spores 7.5-10.5 x 6-7.5(8) μ , warts 0.2-0.6 μ , bands and branches forming a partial to more or less complete reticulum. Pleurocystidia 43-78 x 4-7 μ , ventricose-acuminate; cheilocystidia 24-36 x 3-4 μ , similar. Pileus cuticle a cell-zone, 3-5 cells thick, the cells 18-35 x 12-28 μ , irregularly isodiametric, some of the surface cells prolonged upward to form scattered pileocystidia. Stipe cuticle repent, dry, bearing scattered, hyphoid caulocystidia.

Pastarins cyathula
semin Range (+ Bas)

Bas 1532 (Term 30274)



Pl x 1000



Ch x 1000

[Pileus cuticle
as in
Watling - 6877.]

Bas - 1042

(Tenn 35604) LACTARIUS CYATHULA (Fr.) Fr.

At edge of young deciduous forest, Betula, Salix, Alnus, Noord

Brabant, Holland, July 10, 1956 (Det: Bas, cyathula sensu Lange)

Notes by Bas (Transl. by Donk)

(Material closely resembles Neuhoff, Pl. XVI, fig. 67)

Cap 14-25 mm, at first flat with a small sharp papilla, then shallow funnel-shaped without a papilla, bright orange-brown with a faint flesh-colour hue, slightly granular, occasionally areolate by minute cracks, transparent-striate to the center, extreme margin somewhat grooved. Context odor mild, taste slightly bitter, not sharp. Latex white-watery, unchanging, taste mild.

Gills adnate, pale foxy-brownish cream, often forked, rather close, medium broad.

Stipe 40 x 2.5 mm, at first concolor, then purple red-brown, hollow.

Spores 7.4-10.4 x 5.5-7.2 μ , with rather big warts which are often connected by thin or thick raised lines (especially running from adaxial to abaxial side).

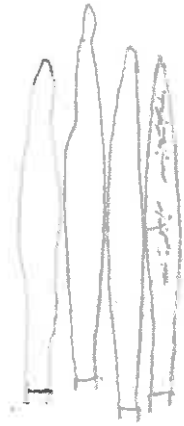
Notes by Hesler

Spores 7.5-10.5 x 6.5-8 μ , ellipsoid, warts 0.2-0.6 μ , bands and branching forming a partial to more or less complete reticulum. Pleurocystidia 44-67 x 5-7 μ , slender-ventricose-acuminate; cheilocystidia 23-30 x 3-4 μ , similar. Gill trama of narrow, subparallel hyphae. Pileus cuticle a cellular zone, at intervals with low mounds of irregularly-shaped cells, often bearing scattered clavate to ventricose

pileocystidia; hypodermium brownish. Stipe cuticle a zone of repent, brownish, narrow, perpendicular hyphae, with scattered cylindric to clavate caulocystidia; rosettes present. Clamp connections none.

Pectanurus cyathula (Fr.) Fr. ss. Ränge

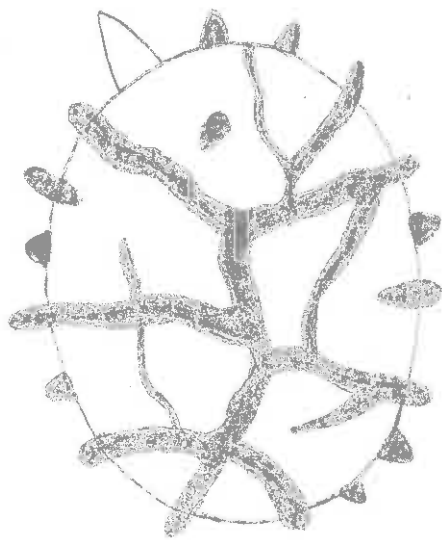
Bas - 1042
(Tenn - 35604)



Sp. x 1000



Ch. x 1000



Spore - x 8000

2
a
LACTARIUS CYATHULUS Fr.

Epicr. Myc., p. 344. 1838

Lactarius paludinellus Pk., N. Y. State Mus. Ann. Rept. 38:133. 1885

(from Elisha Mitch. Jour. 40-41)

"Pileus fleshy, thin, convex, then plane-umbilicate to depressed in the center, sometimes with a small umbo, brownish-drab (302 t. 2) to dark-fawn (307), expallent, slightly viscid when wet, glabrous, 12 mm to 4 cm broad, margin at length slightly striate; gills white to cream colored, becoming darker with age, pruinose, many forking near the stem, close, adnate or slightly decurrent, thin, up to 4 cm broad; stem of the same color as the pileus or paler, nearly equal, glabrous, except at the base, which is slightly villose when growing in moss, stuffed, sometimes hollow, 2-3 cm long, 3-4 mm thick; flesh white or tinted with the color of the surface; spores white, subglobose, echinulate, 6.5-8.5 μ ; latex white, unchanging, mild."

HABITAT AND DISTRIBUTION - On soil, in woods, in sphagnum, or in decaying leaves, North Carolina. Coker accepts cyathula (with paludinellus as a synonym).

Notes on Bresadola Collection of L. cyathula

(from N. Y. Bot. Garden)

Spores 8-9 x 6-7.5 μ , ellipsoid to subglobose, reticulate-verrucose, reticulum continuous, warts about 0.5 μ high. Pleurocystidia 64-81 x 7-10 μ , fusoid, few; cheilocystidia similar, 30-36 x 2-3 μ . Gill-trama of interwoven hyphae. Subhymenium not differentiated. Epicutis a gelatinous zone, 35-50 μ thick. (This is not cyathula)

Sm-77259

LACTARIUS CYATHULUS (?)

Mud Lake Bog, Washtenaw Co., Michigan, October 14, 1969

(No Notes by Smith)

Notes by Hesler

Spores 7-9 x 5.5-7 μ , warts 0.4-0.8(1.0) μ , some warts isolated, bands and branches broken, and with a few lines. Pleurocystidia 54-78 x 5-7 μ , ventricose-acuminate; cheilocystidia 30-43 x 4-6 μ , similar. Pileus cuticle a cell zone, the cells 12-35 x 7-15 μ .

Although there are no notes on fresh state, and the color~~x~~ of the dried material is paler than in some collections, the spore markings and pileus-cuticle cells are characteristic of those of L. cyathula. If the latex became yellow, I then would suggest L. theiogalus.

LACTARIUS CYSTIDIOSUS Thiers

Gregarious in humus in mixed pine-hardwood forest, Sam Houston National Forest, near Stubblefield Lake, San Jacinto Co., Texas, H. D. Thiers
No. 1670, June 8, 1952

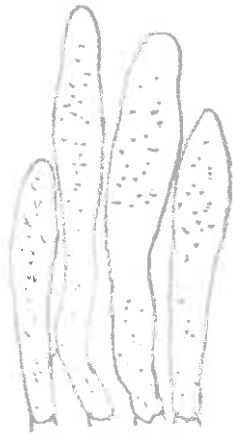
Type

Spores 7-9 x 5.5-7.5 μ , ellipsoid to subovoid, slightly inequilateral in profile, warts 0.3-0.5 μ high, lines and narrow bands forming a reticulum. Basidia 35-52 x 7-10 μ , 4-spored. Pleurocystidia 33-54 x 5-9 μ , more or less clavate, apices rounded or conic, thin-walled, granular, not projecting, inconspicuous, scattered; pseudocystidia 35-55 x 2.5-4 μ , filamentous, more or less crooked, refractive, scattered; cheilocystidia 26-43 x 5-10 μ , clavate, more rarely nine-pin-shaped (lecythiform), thin-walled, granular, scattered, inconspicuous. Gill trama somewhat vesiculose, with hyphae. Pileus trama vesiculose. Cuticle a zone of cells, 3-4 layers in depth, bearing a turf of colorless pileocystidia, 22-62 x 2-5 μ , filamentous, crooked, slightly constricted, thin-walled. Caulocystidia similar to pileocystidia, somewhat shorter, arising from repent hyphae, thin-walled. Clamp connections none.

Factarius cytidiosus Thiers

Type

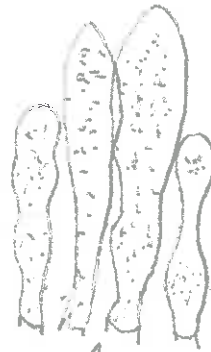
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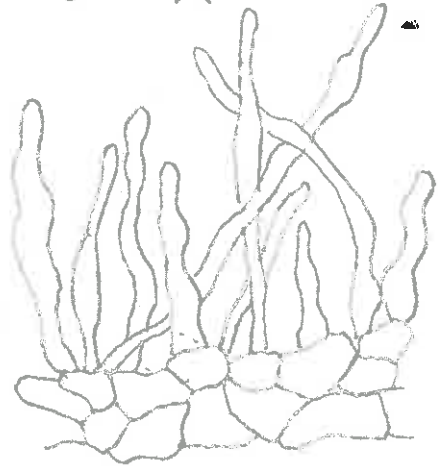
Pl - x 1000



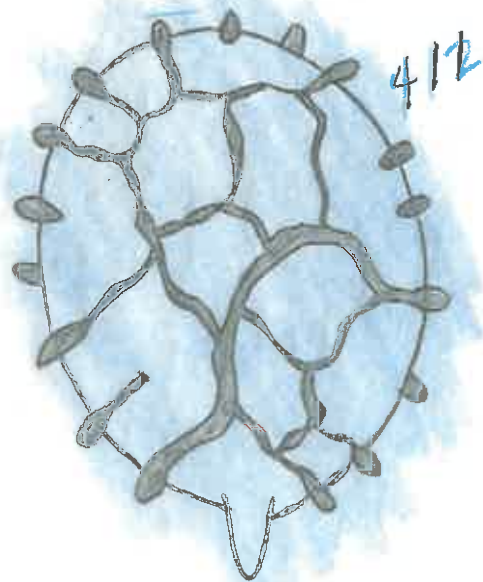
Pseudo -
x 1000



Ch - x 1000



Piles-turf - x 1000



Spore - x 8000

LACTARIUS DECEPTIVUS Pk.

New York State Mus. Ann. Rept. 38:4125. 1885

Pileus 6-16 cm broad, convex-depressed, finally infundibuliform, whitish, often with rusty stains, glabrous but surface torn into fibers and scales, dry, at times rimose, margin inrolled, soft-cottony. Flesh white, hard, thick on disc, thin on margin; odor mild, becoming strong at maturity. Latex white, unchanging, acrid. Lamellae adnate-decurrent, ivory white then creamy, avellaneous-brownish where bruised, close, narrow to medium broad, some forking, edges even. Stipe 4-9 cm x 20-35 mm, white, densely fibrillose, hard, equal or tapering downward, dry, solid.

Spores 9-11 x 7.5-8.5 μ , ellipsoid, reticulate by fine lines, verrucose, warts (0.4)0.6-1.0(1.5) μ high, white or "cartridge buff" in mass. Pleurocystidia 41-95 x 5-10 μ , subventricose, granular; cheilocystidia fusoid, 35-80 x 5-11 μ . Gill trama of large celled hyphae. Subhymenium not differentiated. Epicutis of repent, non-gelatinous hyphae. Clamps none.

Habitat and distribution - On soil, in deciduous and coniferous woods, Tennessee, North Carolina, Alabama, and Florida, July-October.

LACTARIUS DECEPTIVUS Pk.

Sandlake, N.Y., August.

Type (lectotype)

(With the collection is a note, signed by H. D. House: "Peck did not designate a type collection or locality for L. deceptivus, hence the mounted specimens from Sandlake, accompanied by drawings and spore print may perhaps best serve the purpose of a ~~typ~~ type.")

Spores white in deposit, 9-11(13) x 7.5-8.5(9) μ , broadly ellipsoid, more rarely subglobose, warts 0.4-1.0 μ high, isolated but with some connecting fine lines. Basidia 46-58 x 7-9 μ , 4-spored. Pleurocystidia 48-96 x 6-10 μ , subclavate to subventricose, apices often tapering more or less, granular, often more or less constricted, very abundant; cheilocystidia 40-58 x 5-7 μ , more or less similar. Gill trama interwoven. Pileus trama vesiculose, rosettes sometimes present in upper portion of the trama. Pileus cuticle not greatly differentiated, the surface bearing strands of more or less uplifted hyphae (tomentum). Stipe cuticle of repent hyphae, bearing caulocystidia 40-65 x 4-5 μ , more or less constricted and filamentous, as terminal elements of surface hyphae; rosettes present. Clamp connections none.

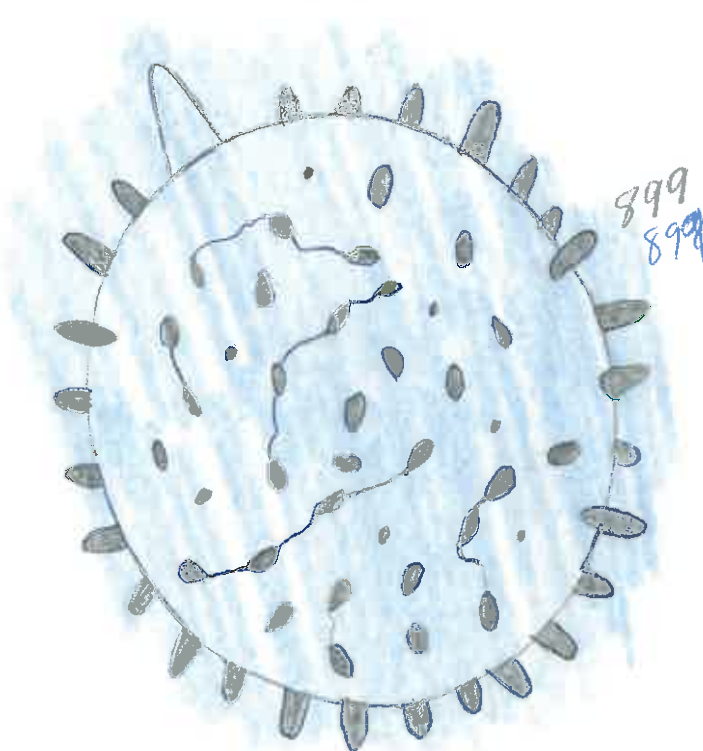
Pactarius deceptoris PK. Type.



PK - x 1000



Ch - x 1000



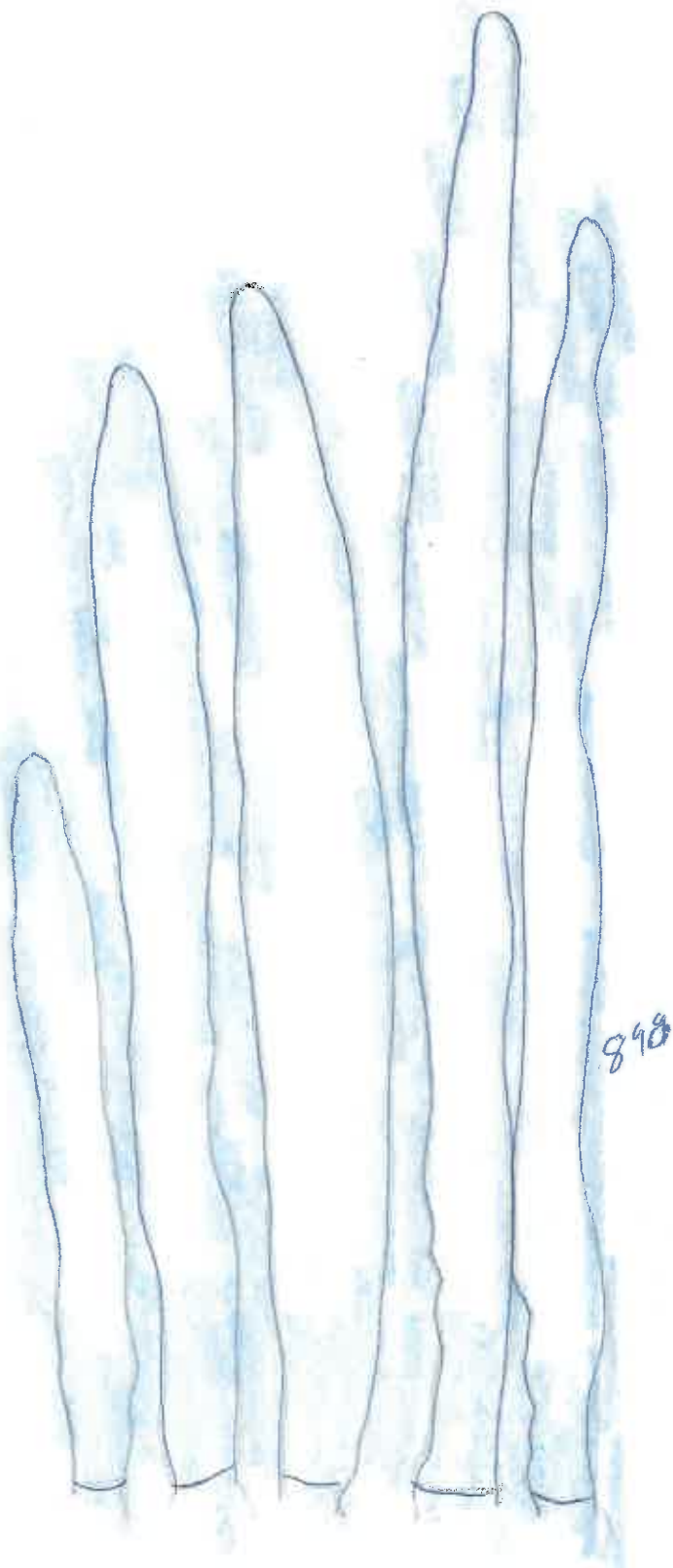
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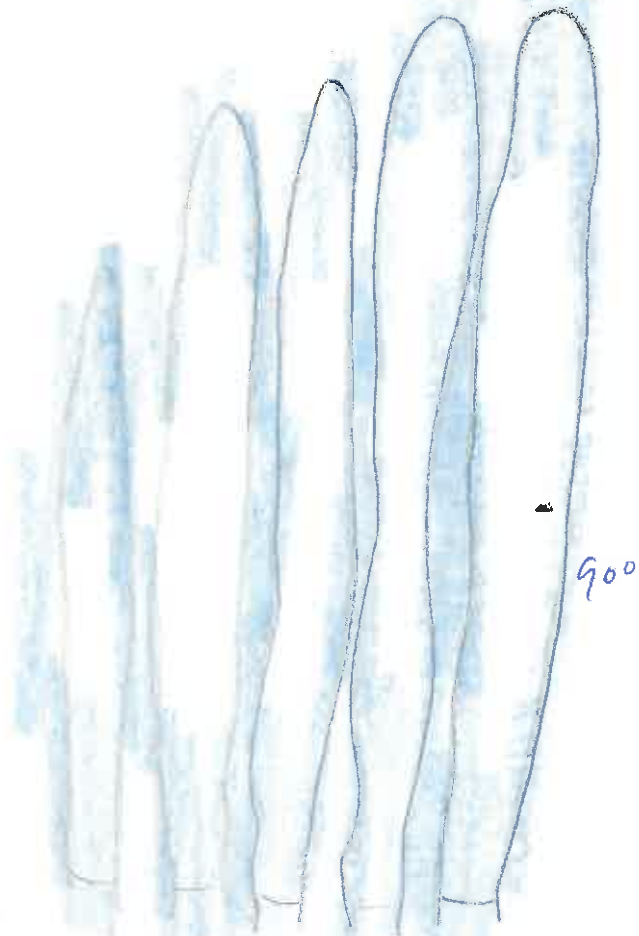
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L. deceptivus PK

Type



Pl - X 2000



Ch - X 2000

deceptive
LACTARIUS ~~INDUBITANS~~

No.	Place Coll.	Spores	Pl.	Ch.	
Type	Sandlake, N.Y.	10-12 7-9	68-80 6-7 numerous	42-63 6-7 similar	
5309	Mt. LeConte 3,500 ft.	8.5-12 7-85	"	"	Aug.
5418	Shady Valley	9-12 7.5-9	"	"	Aug.
9160	Elkmont	9-12 7.5-10			Aug.
9675	Clingman's	9-13(15) 8-10(11)	52-80 6-9 inconspic/ not abundant	30-42 3-6	Sept.
10773	Clingman's	8.5-12 7-8.5	" /rather abundant		Aug.
12356	Highlands	9-13 7.5-9			Sept.
12869	Cades Cove	8.5-12 7-8	50-66 5-9 numerous	36-50 5-6	Sept.
16187	Gainesville, Florida	8.5-11 7-8.5	rather abundant		June
19345	Highlands	10-13 7.5-9.5	44-83 44-83 5-9 abundant	35-47 6-11	Sept.
20563	Cades Cove	9-12 7.5-9	as in 28182 abundant		Sept.
20907	Highlands	9.5-13 7.5-9.5	37-66 5-8 numerous	37-66 5-8	July
22120	Clingman's	9.5-13 8-10	"	as in 28182	Sept.
25689	Cades Cove	8.5-10(11) 7.5-9	45-62 5-7 conspic/ numerous	similar	July

LACTARIUS DECEPTIONS

No.	Place Coll.	Spores	Pl.	Ch.	
Type	Sandlake, N.Y.	10-12 7-9	68-80 6-7 numerous	42-63 6-7 similar	
5309	Mt. LeConte 3,500 ft.	8.5-12 7-8.5	"	"	Aug.
5418	Shady Valley	9-12 7.5-9	"	"	Aug.
9160	Ellicott	9-12 7.5-10			Aug.
9675	Clingman's	9-13(15) 8-10(11)	52-80 6-9 inconspic/ not abundant	30-42 3-6	Sept.
10773	Clingman's	8.5-12 7-8.5	" /rather abundant		Aug.
12356	Highlands	9-13 7.5-9			Sept.
12869	Cades Cove	8.5-12 7-8	50-66 5-9 numerous	36-50 5-6	Sept.
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22120	Clingman's	9.5-13 8-10	"	as in 28182	Sept.
25689	Cades Cove	8.5-10(11) 7.5-9	45-62 5-7 conspic/ numerous	similar	July

No.	Placed Coll.	Spores	Pl.	Ch.	
26835	Ontario	9.5-13 7.5-9.5	58-71 4-6		Aug.
28182	Cades Cove	9-11 7-8.5	43-55 5-7		Sept.
29166	Cades Cove	9-12 x 7-8.5	(as in 28182)		Aug.

Pl. and Ch.

Type 10-12 x 7-9 numerous

Clingmans:

9-13(15) x 8-9(10) inconspic-not abundant
 8.5-12 x 7-8.5 inconspic - rather abundant
 9.5-13 x 8-10 conspic - abundant

Ontario:

9.5-13 x 7.5-9.5 conspic - rather abundant

Highlands/LeConte:

(3,500-4,000)

8.5-12 x 7-8.5 conspic - abundant
 9-13 x 7.5-9
 10-13 x 7.5-9.5 abundant
 9.5-13 x 7.5-9.5

ElkmontNew York:

9-13 x 7-9(10)
 10-12 x 7-9

Cades Cove:

9-12 x 7-8.5 conspic
 9-11 x 7-8.5
 8.5-12 x 7-8
 9-12 x 7.5-9 abundant
 8.5-10 x 7-8.5

Florida:

8.5-11 x 7-8.5 abundant

No.	Placed Coll.	Spores	Pl.	Ch.
26835	Ontario	9.5-13 7.5-9.5	58-71 4-6	Aug.
28182	Cades Cove	9-11 7-8.5	43-55 5-7	Sept.
29166	Cades Cove	9-12 x 7-8.5	(as in 28182)	Aug.

Pl. and Ch.

Type 10-12 x 7-9 numerous

Clingmans:

9-13(15) x 8-9(10) inconspic-not abundant
 8.5-12 x 7-8.5 inconspic - rather abundant
 9.5-13 x 8-10 conspic - abundant

Ontario:

9.5-13 x 7.5-9.5 conspic - rather abundant

Highlands/LeConte:

(3,500-4,000)

8.5-12 x 7-8.5 conspic - abundant
 9-13 x 7.5-9
 10-13 x 7.5-9.5 abundant
 9.5-13 x 7.5-9.5

ElkmontNew York:

9-13 x 7-9(10)
 10-12 x 7-9

Cades Cove:

9-12 x 7-8.5 conspic
 9-11 x 7-8.5
 8.5-12 x 7-8
 9-12 x 7.5-9 abundant
 8.5-10 x 7-8.5

Florida:

8.5-11 x 7-8.5 abundant

Gilliam - 248

LACTARIUS DECEPTIVUS

Pine Lake, Marquette Co., Michigan, July 23, 1968

(labelled L. deceptivus; no notes).

Spores $8.5-11 \times 7-8.5 \mu$, warts $0.5-1.0 \mu$, a few lines. Pleurocystidia $52-88 \times 5-9 \mu$; pseudocystidia filamentous; cheilocystidia $38-55 \times 5-7 \mu$. Pileus cuticle a cutis with overlaid hyphal filamentous. Stipe cuticle repent, caulocystidia $38-60 \times 4-5 \mu$, cylind~~er~~ic, at times more or less constricted, more or less a turf; rosettes present.

Gilliam - ³⁴⁰~~300~~

LACTARIUS DECEPTIVUS

Conway Lake, Marquette, Michigan, T. Gilliam, August 8, 1968.

Notes by Gilliam

Pileus 8-10.5 cm, "warm buff," margin "light buff,"
staining "buckthorn brown." Latex white, staining brownish.

Notes by Hesler

Spores, etc., as in Type. Cottony roll on pileus margin usual.

Peters - 1151

LACTARIUS DECEPTIVUS

In mixed hardwoods, Outonagon Co., Mich., August 25, 1962.

Spores 9-12 x 7-8.5 μ , warts 0.6-1.2 μ , slender, with some connecting lines. Otherwise as in Type.

Stipe dry, with numerous caulocystidia, cylindric; context vesiculose but cells not cuneiform nor in rosettes (as in L. deliciosus).

Ammarati - 2069

LACTARIUS DECEPTIVUS

In mixed woods, Marquette Co., Michigan, August 4, 1968

Notes by Ammarati

Pileus whitish with dull yellowish surface hyphae which break up into scales, margin with a roll of fibrils, becoming stained or discolored. Context white, mild. Latex white, milky, unchanging.

Lamellae dull or grayish white, with reddish tints when cut and standing.

Notes by Hesler

Spores 8.5-11.5 x 7.5-8.5 μ , warts 0.5-1.0 μ , isolated or some connected by lines (only a few found). Pleurocystidia and cheilocystidia and other micro characters as in Type.

The taste is described as mild; otherwise this agrees with Type.

~~albolentus~~ *deceptivus* PK.

Ammirati - 2249 ~~LACTARIUS GRANDISPORUS~~ sp. nov.

Marquette Co., Michigan, in mixed woods, August 12, 1968

Notes by Ammirati

Pileus (15 cm broad, depressed or umbilicate, ground-color whitish, but sordid yellow to pale brownish yellow over disc, pale tan to slightly yellow over margin, fibrillose on the outer margin, patchy-fibrillose on inner margin and disc. Latex ^{white,} ~~very~~ milk-like. Taste slightly peppery; odor fungoid.

Lamellae close, whitish to cream color, sordid brownish or pale dingy yellow.

Stipe 8 cm long, 45 mm thick, finally "light buff" when ~~dry~~ dried, tapering downward (velvety in appearance and to touch), hollow, with some green stains at apex (at gill-stipe juncture).

Spore deposit: white.

Notes by Hesler

Spores (9.5)10-13.5 x 8-10 μ , ellipsoid or (in profile) inequilateral, warts variable ^{0.4} 0.2-0.8 μ high, isolated or connected by obscure fine lines. Basidia 48-62 x 8-10 μ , 4-spored. Pleurocystidia 48-64 x 5-8 μ , cylindric or subventricose acuminate, granular-spangled, buried, or projecting; cheilocystidia 20-38 x 4-6 μ , clavate or cylindric, apices sometimes contracted-capitate. Gill trama of interwoven, short-celled hyphae. Pileus trama vesiculose. Pileus cuticle not greatly differentiated, surface bearing a loose mat of colorless, septate hyphae, 5-15 μ broad. Stipe cuticle similar, except the cylindric to subclavate caulocystidia are thick-walled; rosettes present.

See: Bigelow 13195; also Bigelow 13505 and 13540.

Ammirati - 2392

LACTARIUS DECEPTIVUS Pk.

Under Pinus, Yellow Dog Pine Plains, Marquette Co., Michigan,

August 22, 1968.

Pileus 8-11.5 cm broad, margin decurved to plane, more or less splitting in age, deeply depressed on disc, scaly or squamulose over disc and inner margin, disc cinnamon orange to brownish orange or tinted with these colors, margin with pale-whitish ground color but tinted with disc colors to near edge is appearing more or less ~~4/~~ warm buff to pale cinnamon buff. Context whitish and solid, sometimes stained with colors of disc surface; odor pungent-disagreeable, taste mild - then hot - peppery. Latex white, unchanging.

Lamellae close, more or less ascendent in some, dull whitish to cream color, staining light cinnamon buff when older.

Stipe 3-4 cm, 2-3.5 cm at apex, tapered to base, surface and context white, more or less sordid to stained with cap (disc) color inside and out but not extensively, surface of stipe scruffy tomentose-fibrillose.

Spores in deposit: rich cream to light cream buff.

Notes by Hesler

Spores 8.5-12 x 7-9.5 μ , ellipsoid, slightly inequilateral in profile, warts 0.5-1.2 μ , isolated, a few obscure connecting lines. Otherwise as in the Type.

Hyphae of the pileus trama loosely interwoven, some with obscure incrustation.

Does spore color vary? (white to cream)

Ammirati - 2406

LACTARIUS (deceptivus?)

(CARD: 2392)

Huron Mt. Club, Marquette Co., Michigan, August 23, 1968

Notes by Ammirati

Taste hot peppery. Margin inrolled with a cottony roll. Latex white, unchanging.

Notes by Hesler

No spores found (basidiocarps young). Undoubtedly this is L. deceptivus.

Shaffer - 2701

LACTARIUS DECEPTIVUS

In oak-pine woods, Ogemaw Co., Michigan, August 25, 1960

Notes by Shaffer

Pileus white, margin cottony, with tawny-olive stains. Taste acrid. Stipe white. Latex white, unchanging, acrid.

Notes by Hesler

Spores with isolated warts, some connected by lines.

Thiers - 3229

LACTARIUS DECEPTIVUS

Under pine and hardwoods, Wilderness State Park, Mich., July 14, 1956.

No spores found; otherwise appears to be deceptivus.

Thiers - 3628

LACTARIUS DECEPTIVUS

Bois Blanc Island, Mich., July 29, 1956.

Margin of cap cottony, and extending over the gills as^a/semi-membranous veil; veil composed of septate hyphae, 3-5 μ broad.

Spores 8.5-11.5 x 6.5-8 μ . Otherwise as in Type.

Thiers - 3769

LACTARIUS DECEPTIVUS

In open hardwoods, Burt Lake, Mich., August 3, 1956.

Spores 9-12 x 7.5-8.5 μ . Otherwise as type. Stipe cortex vesiculose, the nest of cells of two kinds: (1) consisting of 12-25 large vesiculose cells, and (2) of smaller rosettes.

5309

LACTARIUS DECEPTIVUS Pk.

Mt. LeConte, Aug. 10, 1934.

Spores 8.5-12 x 7-8.5 μ , warts mostly isolated, 0.6-1.2 μ high.

5418

LACTARIUS DECEPTIVUS Pk.

Shady Valley, Johnson Co, Aug. 19, 1934

Spores 9-12 x 7.5-9 μ . Typical, but below average
in size.

9160

LACTARIUS DECEPTIVUS Pk.

Elkmont, Tenn., Aug. 9, 1936.

Spores 9-12 x 7.5-10 μ , warts 0.6-1.3 μ high.

Pleurocystidia 48-62 x 5-7 μ , scattered, not abundant,
rather conspicuous; cheilocystidia 36-52 x 4-6 μ , similar.
Cuticle repent.

9675

LACTARIUS DECEPTIVUS Pk.

In deep moss, under *Abies fraseri*, Clingman's Dome,
6500 ft., Sept. 27, 1936.

Pileus 8-16 cm broad, convex, finally depressed,
glabrous at first but surface becoming more or less
torn and areolate and appearing squamulose, not viscid,
ochraceous (not changing much on drying), margin with a
dense soft, cottony tomentum which extends to stipe.
Context white, firm. Latex white, unchanging, acrid.

Lamellae adnate to decurrent, subdistant, whitish
or pale ochraceous at first, then ochraceous, some forking.

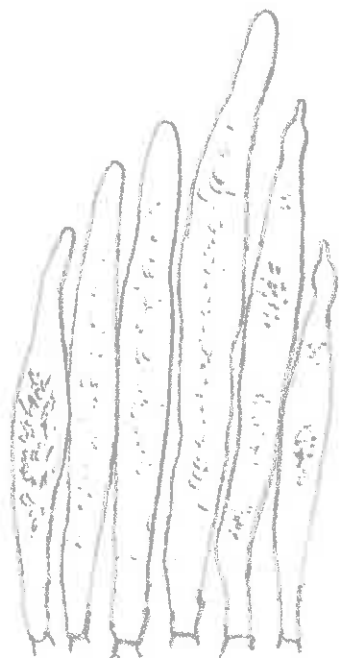
Stipe 3.5-5.5 cm long, 10-20 mm thick, whitish, pruinose
or hairy, tapering downward, solid then hollow.

Spores 9-13 (15) x ~~8-9~~ ^{8.5-10 (11)} ~~(10)~~ ⁽¹¹⁾ μ , ellipsoid, at times
inequilateral, warts 0.5-1.2 μ high, with a few obscure
connecting lines. Basidia 52-58 x 8-9 μ , 4-spored.
Pleurocystidia 52-80 x 6-9 μ , subcylindric to subfusoid,
apices rounded, tapering, more rarely capitate-mucronate,
granular, sometimes spangled, scattered, ^{not abundant} inconspicuous;
pseudocystidia 44-73 x 1.5-4 μ , filamentous, with a refractive
content, scattered; cheilocystidia 30-42 x 3-6 μ , fusoid,
apices more rarely capitate-mucronate. Gill trama of
irregular cells, subhymenium of small compact cells.
Pileus trama vesiculose. Cuticle of pileus of repent
hyphae, not greatly differentiated. Caulocystidia in
scattered tufts, 27-42 x 4-7 μ , clavate or ventricose;
the stipe with numerous hyphal filaments. Clamp
connections none.

Saccarium deceptivum PK.

9675

deceptivum



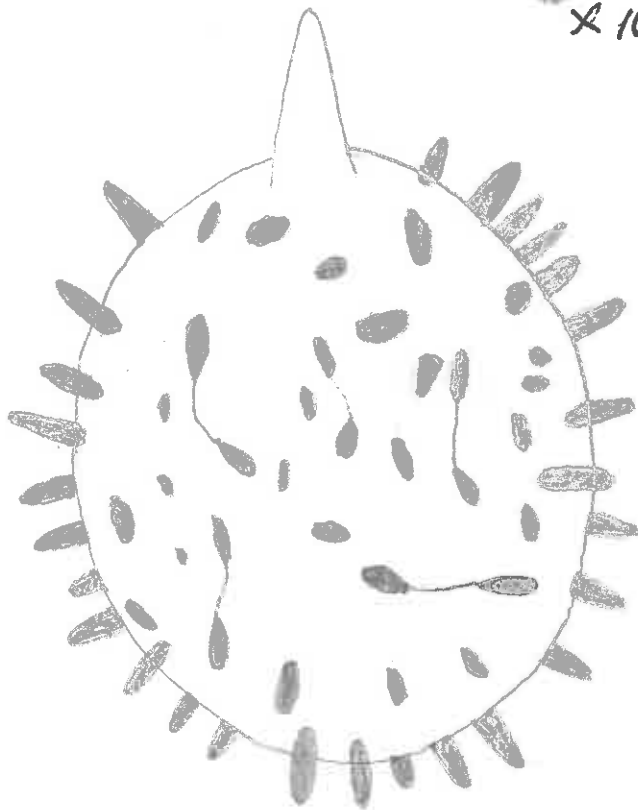
Pl - x 1000



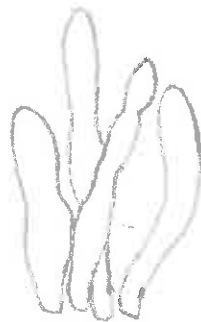
pseudo -
x 1000



ch -
x 1000



Spore - x 8000



caulo. tuft
x 1000

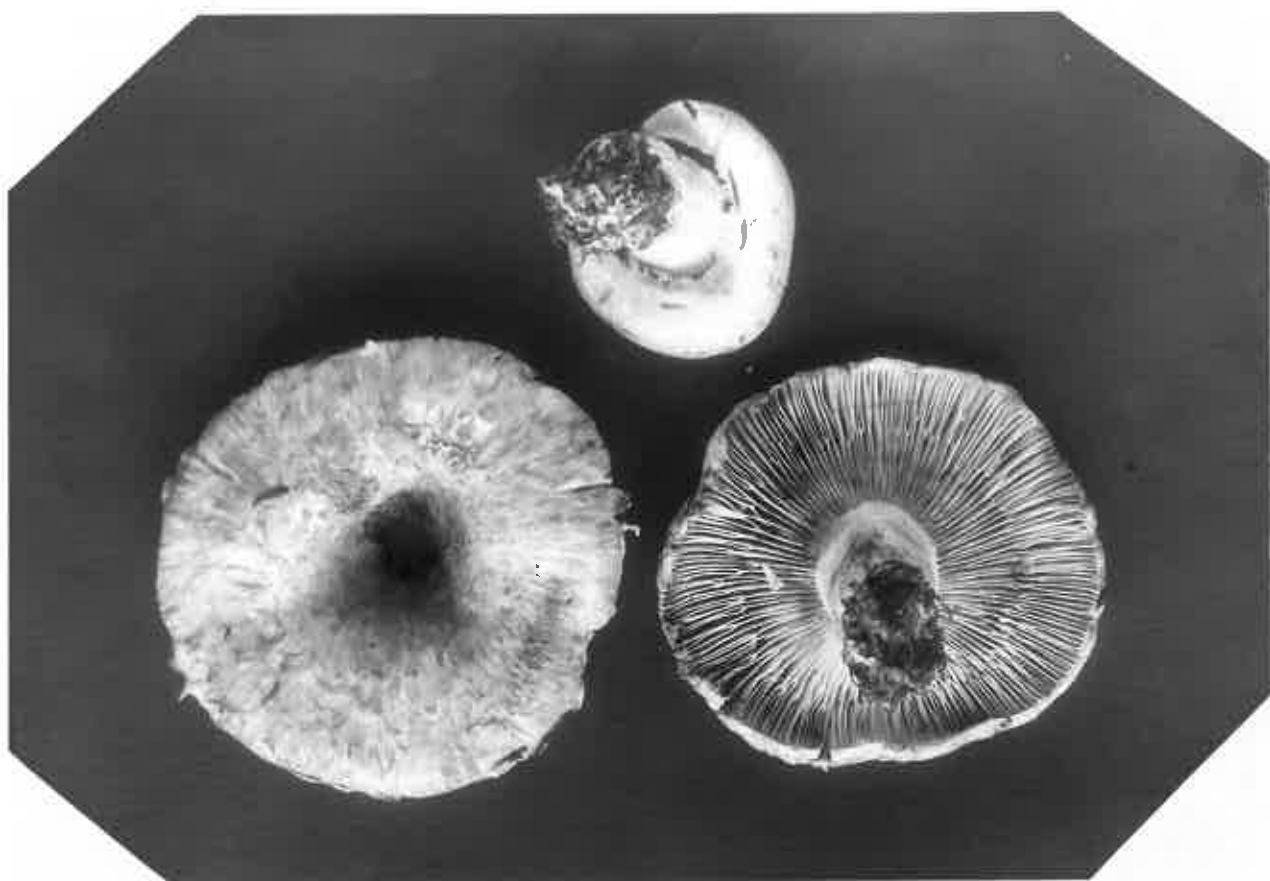
10773

LACTARIUS DECEPTIVUS Pk.

photo

In deep moss, Clingman's Dome, N.C., Aug. 8, 1937.

Spores 9-13 x 8-10 μ , warts 0.6-1.3 μ high, isolated or with a few obscure fine lines. Pleurocystidia 50-72 x 5-7 μ , cylindric to subventricose, apices ⁺ tapering but rounded or capitate; cheilocystidia 37-45 x 4-6 μ , similar (both similar to 28182; although numerous they are less conspicuous than in 28182).



10773 - *Lactarius deceptivus*
(Photo by Alice Caton)



10773 - *Lactarius deceptivus* PK. $\times \frac{3}{4}$

12356

LACTARIUS DECEPTIVUS Ph.

Highlands, N. C., Sept 3, 1939

Spores 9-13 x 7.5-9 μ , warts 0.6-1.2 μ , scattered
with a few obscure connecting lines.

Bigelow 12376 LACTARIUS DECEPTIVUS Pk.

Under conifers, Conway State Forest, Conway, Mass., August 24, 1963.

Notes by Bigelow

"deceptivus"
Bigelow says: / ~~"deception"~~ with a blue line on
stipe apex. Spore deposit failed.

Pileus 5-11 cm broad, plane depressed at first with incurved and inrolled margin, margin cottony, expanding to broadly infundibuliform, cotton appressed in age, surface dry, unpolished, fibrillose, whitish, ochraceous stained about disc in age, no odor, taste acrid, flesh white, thin, rather brittle, firm. Latex white, unchanging or staining.

Lamellae decurrent, evenly, close, narrow, forked, whitish but finally nearly pinkish buff in age, sometimes ochraceous stained.

Stipe short, 3-5 cm long, apex 2-3 cm, enlarged and tapering down abruptly, base 13-21 cm, solid, apex scabrous, with distinct glaucous line next to gills, appressed fibrillose below.

Notes by Hesler

All micro characters as in Type.

Potter - 12415

LACTARIUS DECEPTIVUS

Edgewood, Mich., on low ground, September 29, 1959.

Notes by Potter

Latex white, unchanging, acrid. Cut lamellae turning pinkish cinnamon then tawny. Odor not distinctive. Spores white.

Notes by Hesler

Spores 9-12 x 8-10 μ , warts (0.4)0.7-1.2 μ , isolated or connected by fine lines. Basidia 54-63 x 9-10 μ , 4-spored. Pleurocystidia 62-75 x 6-7 μ , subfusoid, constricted, apices with a capitellum; cheilocystidia 42-60 x 5-6 μ , subfusoid, at times constricted and with a capitellum. Gill trama of rather large cells. Pileus trama vesiculose. Pileus cuticle a thick zone of very loosely interwoven hyphae; no hypodermium. Stipe cuticle of repent hyphae bearing a turf of erect, hyphoid caulocystidia, 125 μ (more or less) long. Clamp connections none.

Similar to Potter-12756, but differs in larger spores.

Pastorius deceptivus
Potter - 12415



Pl - x 1000



ch - x 1000



Spore - x 8000

Potter-12756

LACTARIUS DECEPTIVUS

Gregarious in woods, Ithaca, Michigan, September 3, 1960 (labelled L. subterminosus)

Notes by Potter

Taste acrid; odor present, not distinctive. Cap margin only slightly tomentose. Latex white, unchanging. -----(illegible) on stipe eventually cinnamon. Lamellae where cut becoming pinkish cinnamon. Spore deposit white (when fresh; now, 8 years later, deposit is pale-yellowish).

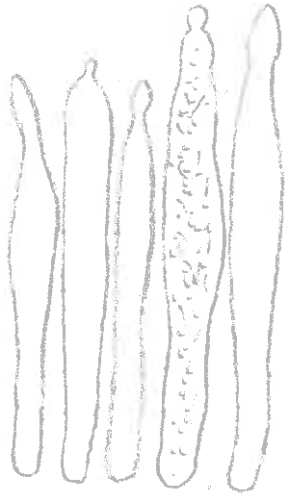
Notes by Hesler

Spores $7.5-10 \times 6-8.5 \mu$, warts $0.3-0.5 \mu$ high, isolated or at times with fine connecting obscure lines. Basidia $40-44 \times 8-10 \mu$, 4-spored. Pleurocystidia $52-64 \times 5-9 \mu$, subventricose to subclavate, often with a capitellum, granular-spangled; pseudocystidia present on edges, cheilocystidia $40-53 \times 5-6 \mu$, subclavate, at times with a capitellum. Gill trama of interwoven hyphae. Pileus trama vesiculose. Pileus cuticle a loose zone of tangled, colorless, non-gelatinous, hyphae. Stipe cuticle of repent hyphae, bearing a turf of caulocystidia, $30-50(175) \times (3)4-8 \mu$, filamentous to flask-shaped. Stipe cortex with rosettes; also with a peripheral zone of longitudinally-disposed hyphae which are yellowish brown in 2% KOH. Clamp connections none.

Although labelled L. subterminosus that species has much smaller spores ($5.5-7 \times 4.5-6 \mu$) and with bands and lines forming a partial reticulum.

Sactarius deceptionis

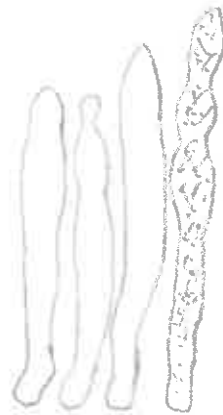
Potter - 12756



Pl - x 1000



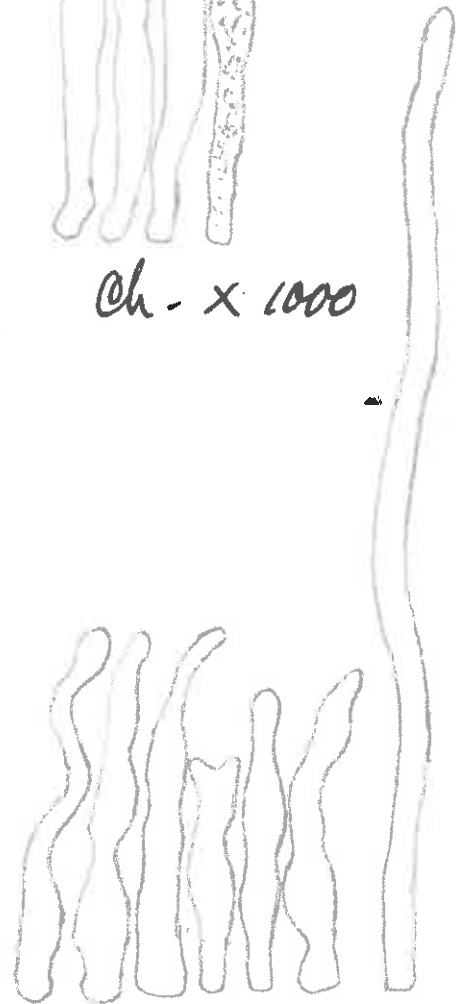
Pseudo -
(on edges) - x 1000



Ch - x 1000



Spore - x 8000



Caulo (turf) - x 1000

Potter-12769

LACTARIUS DECEPTIVUS

Gregarious, on soil, Ithaca, Michigan, September 5, 1960.

Notes by Potter

Taste acrid. Latex white, unchanging. Old cuts and bruises pinkish cinnamon. Spores white.

Notes by Hesler

Spores 7.5-10 x 6-8.5 μ , warts 0.3-0.5 μ high, isolated, or with a few fine lines. Basidia 38-42 x 7-9 μ , 4-spored. Pleurocystidia 52-64 x 5-7 μ ; cheilocystidia 35-46 x 5-6 μ . Gill trama interwoven. Pileus cuticle a thick zone of very loosely interwoven hyphae. Pileus context vesiculose. Otherwise as in Potter-12756.

12869

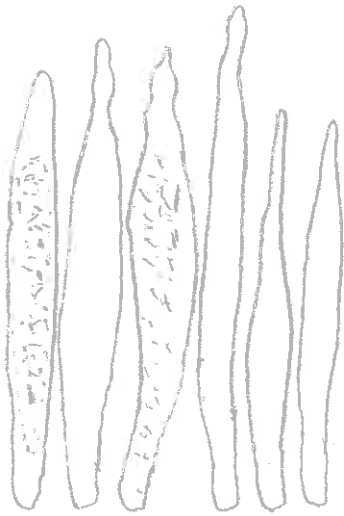
LACTARIUS DECEPTIVUS

Cades Cove, Sept. 1, 1940

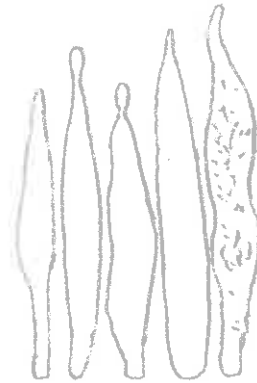
Spores 8.5-12 x 7-8 μ . Pleurocystidia 50-66 x 5-9 μ , numerous in most sections, subfusoid, apices more or less tapering, often capitate-mucronate; cheilocystidia 36-50 x 5-6 μ , somewhat similar.

Lactorinus deceptorus

12869



Pl. $\times 1000$



Ch. $\times 1000$

deceptrus Pk.
alboluteus

Bigelow - 13505

LACTARIUS ~~GRANDISPORUS~~ sp. nov. (Card: 13195)

Long Trail, Bolton, Vermont, August 18, 1964

Spores 9-13 x 8-9.5 μ , ellipsoid (face view), inequilateral (profile), warts 0.6-1.0 μ , isolated or with an occasional, obscure connecting line, apiculus rather blunt. Micro characters otherwise as in 13195 - but add: some epicuticular hyphae of pileus are incrustated. The caulocystidia are thick-walled (as in 13195).

13983

LACTARIUS DECEPTIVUS Pk.

In deep moss, N. C., Clingmans Dome, balsam woods, August 24, 1941.

Pileus 6-14 cm broad, convex, depressed, finally deeply so, whitish, or more often "cinnamon buff" to near tawny, dry, at first matted fibrillose, fibrils soon aggregated to form coarse scales (especially in center), becoming rimose, margin inrolled and cottony. Context white, thick, firm; odor mild (strong at maturity). Latex white, unchanging, acrid.

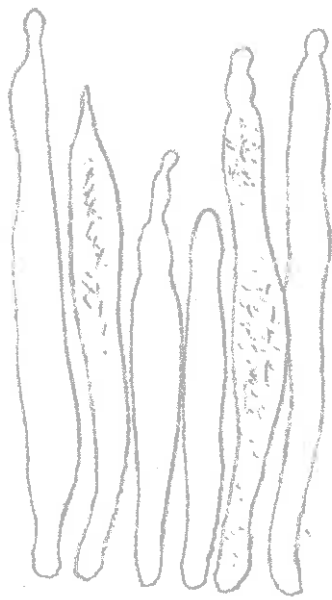
Lamellae adnate, close, becoming nearly subdistant, often forked, narrow, arcuate, tapering both ways, at first white, at maturity brownish-flesh, edges even.

Stipe 4-9 cm long, 20-35 mm thick, equal or tapering downward, fibrillose, concolorous, dry, solid.

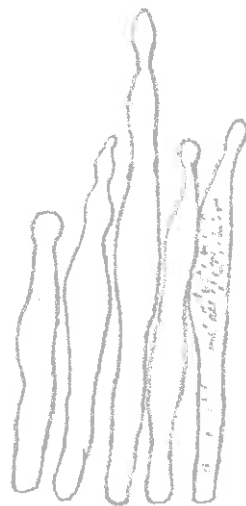
Spores 9-12(13) x 8-10 μ , ellipsoid, warts .8-1.2 μ high, many isolated, some with connecting fine lines. Pleurocystidia fusoid to more or less clavate-nodulose, often subcapitate, 50-95 x 4-8 μ ; cheilocystidia similar, 38-66 x 4-7 μ . Pileus cuticle of repent hyphae, often overlaid with strands of fibrils, not gelatinous. Subhymenium inconspicuous, subparallel. Stipe cuticle of repent hyphae with overlaid strands of fibrils. No rosettes found. Clamps none.

In this material the cuticle was slow in becoming cracked as is often the case.

Factarius deceptorus
13983



Pl - x 1000



Ch - x 1000

16187

LACTARIUS DECEPTIVUS

Under live-oak, Gainesville, Florida, June 24, 1938

Spores 8.5-11 x 7-8.5 μ . Pleurocystidia more or less abundant. Otherwise typical.

19345

LACTARIUS DECEPTIVUS Fr.

Highlands, N.C., leg. Helder, Sept 11, 1949

Pileus 8-12 (15) cm broad, convex-depressed, finally infundibuliform, white with rusty stains, glabrous but surface becoming torn into fibers and scales, dry, margin inrolled, soft-cottony. Context white, hard, thick on disk, thin on margin. Latex white, unchanging, acrid.

Lamellae adnate-decurrent, ivory white then creamy, avellaneous-brownish where bruised, subdistant to close, brownish when bruised, medium broad, some forking, edges even.

Stipe 5-9 cm long, 20-30-mm thick, white darkening slightly in age, densely fibrillose, hard, equal or tapering downward, solid, dry.

Spores white in deposits, 9-13 x 7.5-9 μ , ellipsoid, warts 1-1.5 μ high with some fine lines, white in mass. Pleurocystidia fusoid, 41-83 x 5-9 μ , rather abundant; cheilocystidia fusoid, 35-47 x 6-11 μ . Cuticle of repent hyphae, not gelatinous.



19356 - *Lactarius deceptivus* PK. $\times \frac{5}{6}$



19356 - *Lactarius deceptivus* Pk.

20563

LACTARIUS DECEPTIVUS

PHOTO

Cades Cove, Sept. 3, 1952.

Spores white in deposits, 9-12 x 7.5-9 μ , warts
0.7-1.2 μ high. Pleurocystidia and cheilocystidia
numerous and conspicuous (as in 28182).



20563- *Lactarius deceptivus* Pk.

20907

LACTARIUS DECEPTIVUS Pk.

Under hemlock, Highlands, N.C., July 19, 1953

Pileus 8-12 (15) cm broad, convex, depressed, finally infundibuliform, white with rusty stains, glabrous but the surface becoming torn into fibers and scales, dry, margin inrolled, soft-cottony. Context white, hard, thick on disk, thin on margin. Latex white, unchanging, acrid.

Lamellae adnate-decurrent, ivory white then creamy, avellaneous-brownish where bruised, close, long, medium broad, some forking, edges even.

Stipe 5-9 cm x 20-30 mm thick, white, densely fibrillose, hard, equal or tapering downward, solid, dry.

Spores 9.5-13 x 7.5-9.5 μ , ellipsoid, reticulate by fine lines, verrucose, warts 1-1.5 μ high, white in mass, (pale yellow after storage in herbarium). Pleurocystidia and cheilocystidia fusoid, 37-66 x 5-8 μ , abundant. Cuticle of repent hyphae, not gelatinous.



20907 - *Lactarius deceptivus* PK. $\times \frac{2}{3}$

20907 - *Lactarius deceptivus* Pe.

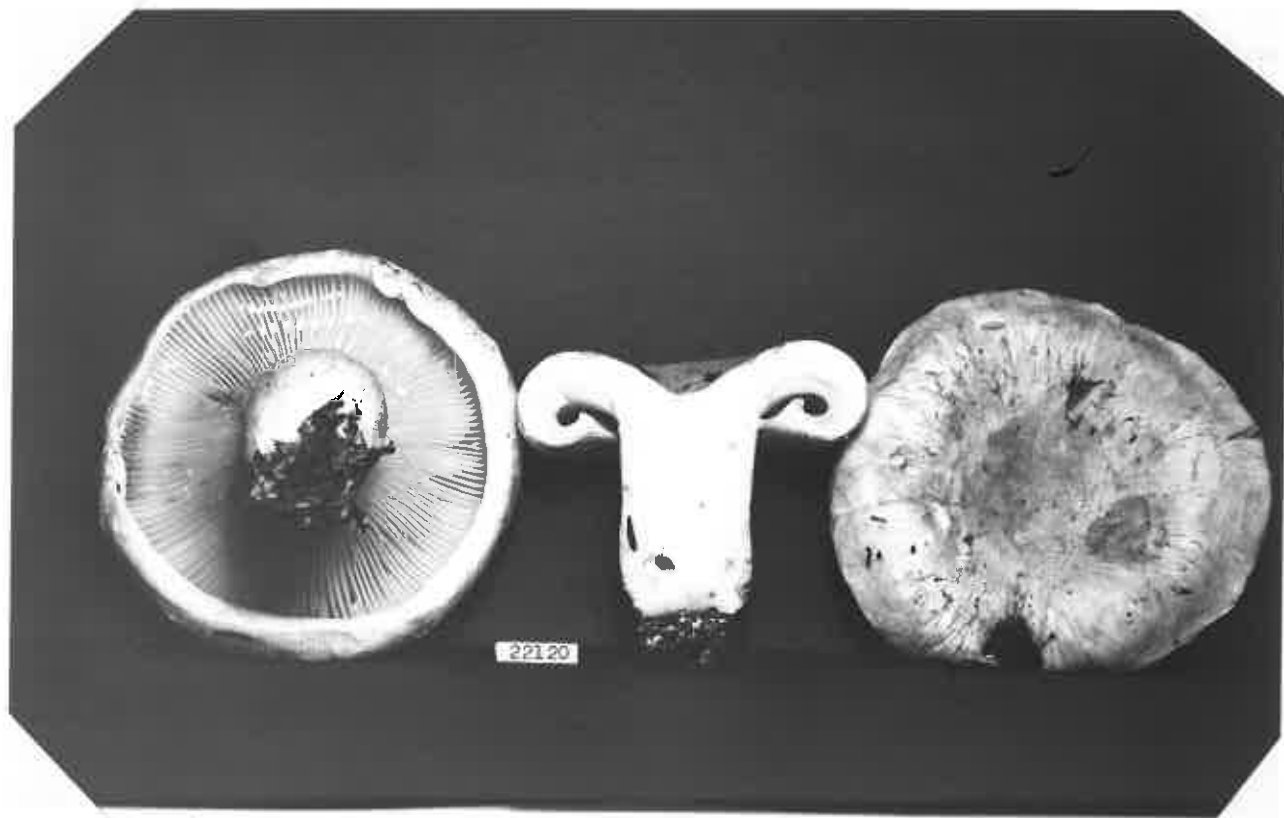
22120

LACTARIUS DECEPTIVUS Pk.

PHOTO

Clingman's Dome, GSMNP, Sept. 1, 1955.

Spores white in deposit, 9-12.5 x 7.5-9 μ , warts
0.6-1.4 μ high. Pleurocystidia and cheilocystidia
numerous, as in 28182.



22120 - *Lactarius deceptivus*Pk.

25689

LACTARIUS DECEPTIVUS Pk.

photo

Decid. - conifer woods, Cades Cove, July 15, 1963.

Spores 8.5-10(11) x 7.5-9 μ , ellipsoid, warts 0.5-1.0 μ high. Pleurocystidia 45-62 x 5-7 μ , ventricose-cylindric, apices tapering, often moniliform-capitate, conspicuous and numerous; cheilocystidia 37-50 x 5-7 μ , similar.

26835

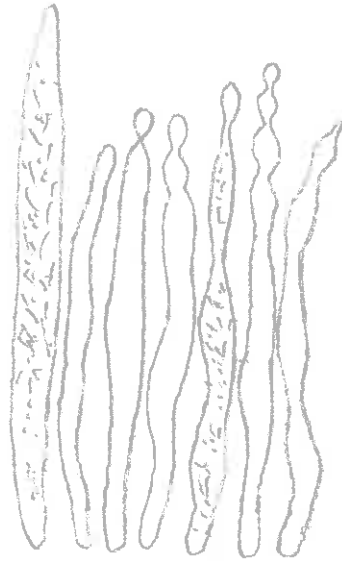
LACTARIUS DECEPTIVUS

Whitney, Ontario, leg. Petersen, Aug. 6, 1962.

Spores $9.5-13 \times 7.5-9.5 \mu$, ellipsoid, often inequilateral, warts $0.5-1.2 \mu$ high, isolated or with an occasional connecting line. Pleurocystidia $58-71 \times 4-6 \mu$, \pm cylindric or subventricose, apices tapering, often capitate-monilliform, granular and spangled; cheilocystidia not found. Otherwise as usual.

Sactarius deceptorius

26835



Pl. x 1000

27063

LACTARIUS DECEPTIVUS

On soil, hemlock knoll, edge of bog, Genessee Co., N. Y., leg. N. G.

Miller, October 2, 1962.

Spores 9.5-13 x 8-9.5 μ , warts short, with a few connecting lines.

Otherwise as Type.

27073

LACTARIUS DECEPTIVUS

In hemlock-deciduous woods, Genesee Co., N. Y. leg. N. G. Miller,
October 9, 1962.

Spores 9-13 x 8-9.5 μ . Otherwise typical.

28182

LACTARIUS DECEPTIVUS

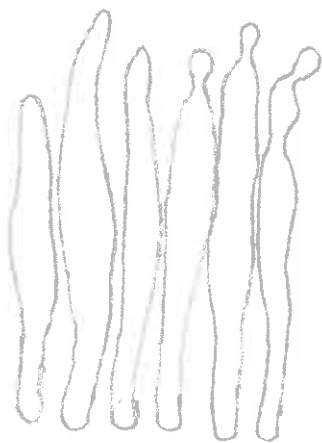
PHOTO

Cades Cove, Sept. 3, 1965.

Spores 9-11 x 7-8.5 μ . Pleurocystidia 43-55 x 5-7 μ ,
capitate or non-capitate; granular-spangled; cheilocystidia
37-45 x 5-7 μ , similar. Pseudocystidia 37-43 x 2-3 μ ,
filamentous, with a refractive content, on the gill-edges.
Cuticle repent.

Factarius deceptorus

28182



Pl. - x 1000



Pseudo
(on edges)
- x 1000



Ch. -
x 1000 -

[Spines as
usual]

29166

LACTARIUS DECEPTIVUS Pk.

PHOTO

On soil, mixed conifer-deciduous woods, leg. Ron Petersen,
Cades Cove, August 2, 1966.

In most, the stipe minutely white pruinose to pubescent
or fibrillose; in some it is densely hirsute tinged dingy
buff.

Spore deposit whitish-buff; spores 9-12 x 7-8.5 μ .

Pleurocystidia and cheilocystidia as in 28182.



29166 - *Lactarius deceptivus*

Tenn - 35346

Bigelow - 13195 LACTARIUS ~~GRANDISPORUS~~ sp. nov.

PHOTO

Gregarious in mixed woods, Stowe, Vermont, July 31, 1964

Notes by Bigelow

Pileus 5-11(15) cm broad, convex-depressed, at first with narrowly incurved or inrolled, slightly felt-like margin (not cottony as in L. ~~deceptivus~~!), even, remaining inrolled for sometime, becoming plano-depressed, finally margin elevated somewhat, then more or less broadly infundibuliform with arched margin, surface dry, appressed, soft, matted-fibrillose, scabrous in age especially in the depression, whitish (near "light buff"), pale dingy buff in age. Context white, medium thick, firm; odor rather unpleasant but not strong, taste slowly but strongly acrid. Latex white, unchanging, slightly staining the tissue brownish, taste slightly peppery to mild.

Lamellae decurrent, whitish, paler than cap when young then concolor in age (not pinkish), close but not crowded, forked, or at times anastomosed, not intervenae, rather narrow (3-4.5 mm), evenly attached to form collar, edges even.

Stipe 3-4.6 cm long, apex 18-22 mm thick, tapering downward, solid (white within and continuous with cap flesh), surface soft with feeling of chamois, densely, short fibrillose under lens, white, sometimes brownish when bruised, dry, unpolished.

Notes by Hesler

Spores white in deposit, 8.5-13.5 x 8-10 μ , ellipsoid, inequilateral, warts 0.5-1.0 μ high, isolated or with a few obscure fine lines. Basidia 48-62 x 8-11 μ , (2)4-spored. Pleurocystidia 48-78 x 5-8 μ , rather

numerous, more or less cylindric-filamentous, apices tapering somewhat and often constricted-nodulose, thin-walled, granular; pseudocystidia filamentous; cheilocystidia 20-57 x 4-7 μ , similar. Gill trama of short-celled, interwoven hyphae. Pileus trama vesiculose. Pileus cuticle of repent hyphae (poorly differentiated) bearing tangled, thin-walled hyphae, 3.5-5 μ broad, forming a trichodermium; hypodermium none. Stipe cuticle of repent hyphae bearing a turf of slender, colorless, mostly thick-walled hyphae; rosettes present. Clamp connections none.

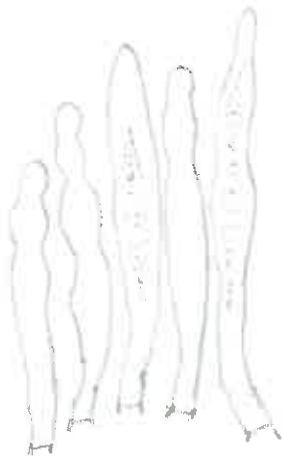
The matted-fibrillose pileus margin indicates Sect. Terminosi, but the large spores and thick-walled caulocystidia are distinctive! It, in general, resembles the Piperati--especially L. subvellereus, and has a soft feel, as of chamois (shammy, or shamoy).

Rattarius albolitens *deceptivus*
Rattarius grandisporus sp. nov.

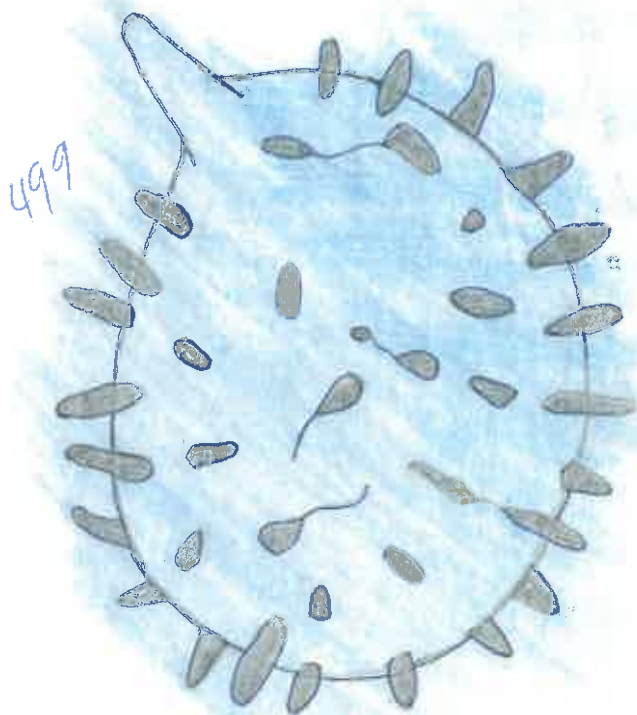
Bigelow - 13195 - type
(Tenn - 35346)



Sp - x 1000



Ch - x 1000

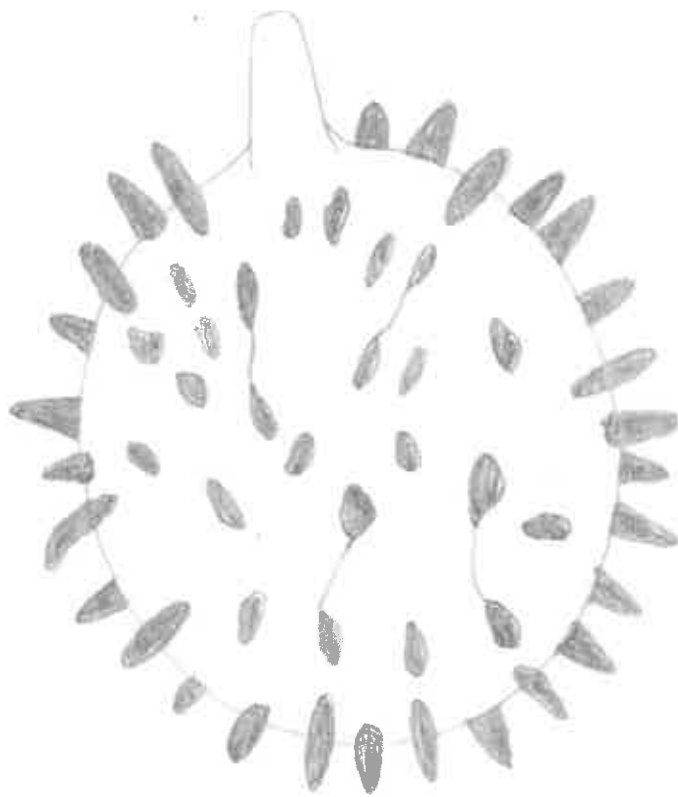


Caule - x 1000
(thick-walled)

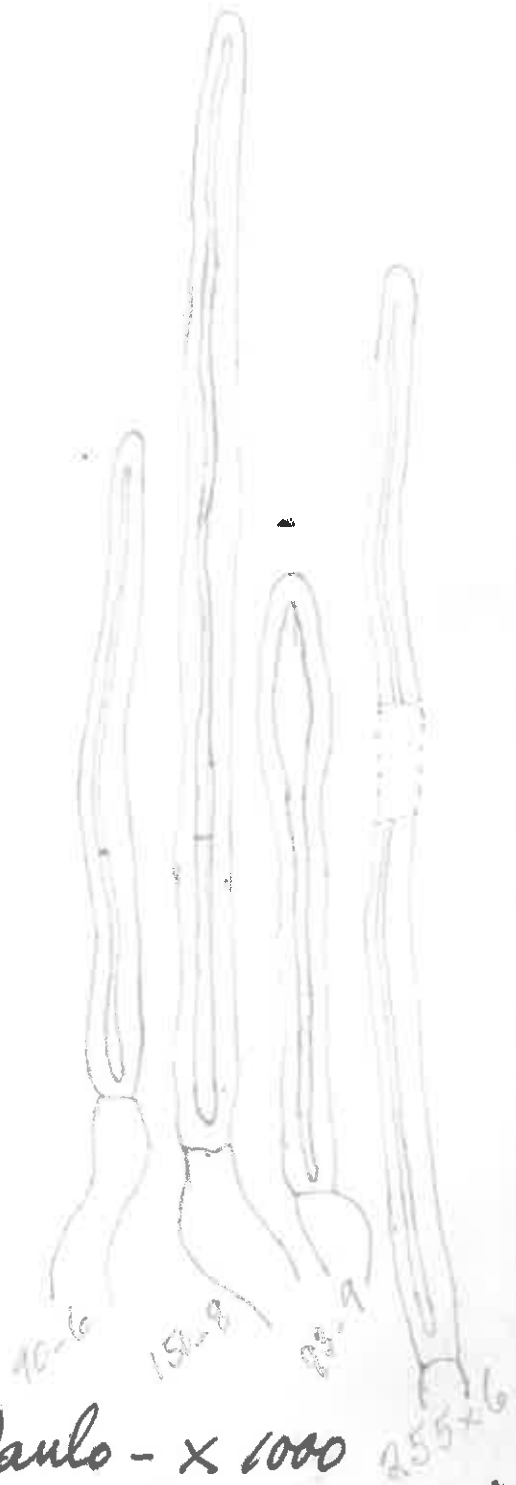
(more, next sheet)

Spore - x 8000
(profile)

actinurus ~~*grandisporus*~~ ^{*albolineatus* *deceptivus*} sp. nov.
Bigelow - 13195 - type
(Term - 35346)



Spore - x 8000
(face-view)



Caule - x 1000
(thick-walled: macrocaulocystidia)

deceptivus

Bigelow - 16238 LACTARIUS ~~DECEPTIVUS~~ var. ~~ROSEOPHYLLUS~~ ^{*sp.*} nov. PHOTO
Scattered to gregarious, in oak woods, Fannie Stebbens Wildlife Refuge,
Longmeadow, Hampden Co., Mass., September 30, 1970

Notes by Bigelow

Pileus 7-9.5 cm broad, plane with margin at first decurved and incurved, edge distinctly cottony, horizontal to elevated in age and sometimes splitting downward into stipe, dry, dull, finely matted-fibrillose cottony under lens, white, with tinges and areas of yellowish brown in age. Context thin, firm, white; odor pleasant, taste mild. Latex white, unchanging, staining the lamellae pale pinkish tan (darker than gills), not copious.

Lamellae decurrent, whitish on the faces, but decidedly with a pinkish flush overall, slightly darker in age, pinkish brown where bruised or from latex stain, close to subdistant (not crowded), forked at times near base, not intervenose, narrow to medium broad, edges even.

Stipe 3.5-5 cm long, 20-40 mm thick, white, dull, densely matted-fibrillose to velvety-pubescent, with some erect short hairs under a lens.

Spore deposit: white to very faintly ~~pink~~ cream.

Like deceptivus but margin less developed, the taste mild, lamellae flushed pinkish, under hardwoods. Almost a "cross" between deceptivus and controversus.

Notes by Hesler

Spores 8-11 x 6-8.5 μ , warts 0.2-0.8 μ , slender, isolated with some connected by obscure lines. Basidia 50-62 x 10-11 μ , 4-spored. Pleurocystidia 50-62 x 5-7 μ , subventricose, apices tapering slightly, buried, inconspicuous; pseudocystidia filamentous, 2-4 μ broad; cheilocystidia 36-52 x 5-7 μ , similar. Pileus cuticle not greatly differentiated from the trama, the surface bearing a loosely interwoven zone of slightly thick-walled, colorless hyphae, 4-12 μ broad; rosettes in lower trama. Stipe cuticle of repent hyphae, bearing a trichodermial turf of thick-walled, slender (3-5 μ) hyphae; rosettes present. Clamp connections none.

Factarium ^{deceptivus} ~~deceptivus~~ var. ~~roseophyllus~~ ^{sp.} ~~sp.~~ ^{not}
Bigelow - 16238



Ch x 1000



Ch x 1000



Hyphal hair, from
stipe - cuticle turf
x 1000

35912

LACTARIUS DECEPTIVUS

On soil, in mixed woods, Cades Cove, Tennessee, October 13,
1971

Pileus 4-7 cm broad, depressed, dry, white, soft-appressed-fibrillose, margin with a slender cottony-roll. Latex acrid, white, unchanging, the gills, when rubbed lightly, staining "avellaneous."

Lamellae creamy-white, adnate, few forking, few lamellulae, nearly close, narrow.

Stipe 2-3 cm, 10-30 mm, white, pale "avellaneous" where bruised, equal or tapering slightly downward, stuffed to hollow, dry, fibrillose.

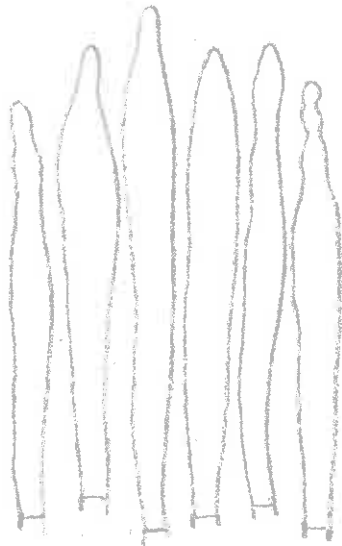
Spores white in deposit, 8-11 x 6.5-8 μ , warts more or less slender 0.3-0.8 μ , isolated, with some connected by fine lines. Pleurocystidia 53-68 x 5-8 μ , subclavate and either short~~a~~-appendiculate or conic, or subcylindric-conic, buried, rather numerous but not very conspicuous; cheilocystidia 35-46 x 4-6 μ , ventricose-acuminate. Gill trama of densely interwoven, slender hyphae. Pileus cuticle of repent hyphae, bearing a thick zone of loosely arranged, colorless hyphae, 7-14 μ broad, thin-walled, finally "weathering" away in age (glabrescent).

Stipe cuticle similar to pileus cuticle but hyphae thick-walled, and 3-5 μ broad.

Special characters: hyphae on stipe thick-walled, latex white, unchanging, staining the gills and stipe "avellaneous," when rubbed; spores white, rather large with conspicuous warts (isolated and connected by lines).

Rastarius ~~*deceptionis*~~ *deceptionis*

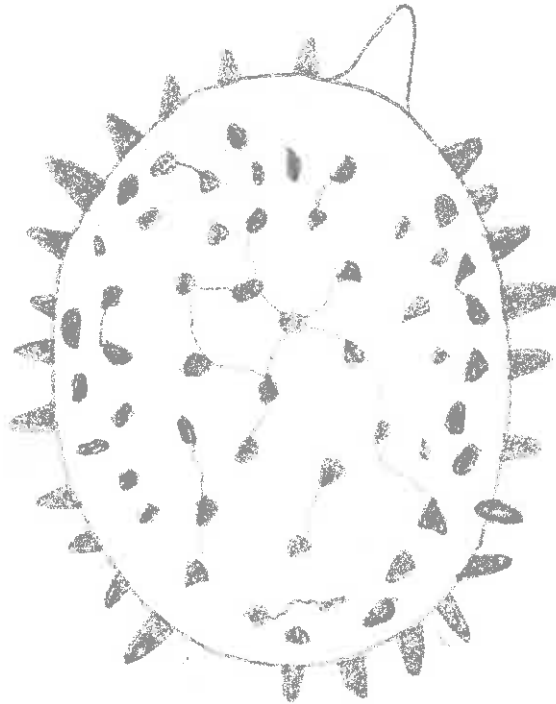
35912



Pl x 1000



Ch x 1000



Spore x 8000



Stipe turf-hair
x 1000
(thick-walled)

35934

LACTARIUS DECEPTIVUS Pk.

Cades Cove, in oak woods, October 18, 1971

Pileus, etc. as usual. Lamellae staining pinkish-brown
("avellaneous").

Spores in deposit: white.

Cooke - 37622

LACTARIUS DECEPTIVUS

Hocking Co., Ohio, August 27, 1966

Notes by Cooke

Pileus convex-depressed, light brown, cracked and darker brown on center, rough-innate-scaly. Latex white, strongly peppery. Stipe white; 7 cm x 40 mm. Gills white-cream, medium close.

Notes by Hesler

Spores 8.5-12 x 7.5-9 μ , warts more or less ϕ 0.2 μ , bands few (narrow), and lines, some warts isolated, no reticulum. Pleurocystidia and cheilocystidia similar, 42-55 x 5-7 μ , subventricose or subclavate. Pileus cuticle repent, ~~not~~ not greatly differentiated. Stipe ~~cuticle~~ cuticle repent, not greatly differentiated. Stipe cuticle repent bearing a trichodermial tangle of hyphae. Rosettes in lower trama of pileus and outer trama of stipe.

~~Notes by Cooke~~

Cooke - 37623

LACTARIUS DECEPTIVUS

Hocking Co., Ohio, August 27, 1966

Notes by Cooke

Pileus 5-12 cm, cream to tan. Latex white no flavor (?should be acrid - L.R.H.). Gills creamy, medium close. Stipe up to 6 cm x 25 mm.

Notes by Hesler

Micro characters agree with Type.

Cooke - 43180

LACTARIUS DECEPTIVUS

In mixed woods, Cantwell Cliffs, Hocking Co., Ohio, August 15, 1970

Notes by Cooke

Cap 13 cm, infundibuliform, whitish with the surface broken into yellowish or tan scales. Flesh white. Latex white, acrid, unchanging, not staining. Gills white. Stipe 7 cm x 20 mm.

Notes by Hesler

(Specimens seem to have been invaded by insects.)

Spores 8.5-11(12) x 7-8.5 μ , warts variable: 0.2-0.7 μ high, with a few obscure lines. Pleurocystidia and cheilocystidia usual. Stipe cuticle with colorless, thick-walled hyphae (hairs).

Sm-77174

LACTARIUS DECEPTIVUS Pk.

Jackson Co., Mich., July 31, 1960.

Notes by Smith

Pileus squamules dull alutaceus in age. Cottony roll very distinct on margin. Blue line on gills.

Stipe with a blue line at apex of one young basidiocarp. (also observed by Bigelow) - see his 12376.

Notes by Hesler

Spores 9-12 x 7-8.5 μ , ellipsoid, warts 0.7-1.3 μ high, usually slender, isolated or with some connecting lines. Otherwise as in Type.

van Waveren - a
(Tenn - 35534)

LACTARIUS DECIPIENS Quel.

(color photo)

Under beech and oak, in moss, Denekamp, Holland, July 17, 1965.

Notes by van Waveren

Pileus 25-50 mm, irregularly shaped, sometimes semi-globose and margin undulating, but usually convex to plano-convex to applanate, center slightly depressed and then with sharp umbo in center, color of moist center dark pinkish orange brown (S 191, 192, 202), peripheral half paler (S 194, 203, 204, 190). Context odor of pelargonium. Latex abundant, rather acrid, in fresh specimens immediately distinctly yellow on gills, after storage in refrigerator for 24 hours white but soon turning yellow on a white handkerchief.

Gills pinkish-ocher, rather crowded.

Stipe 3.5-4.5 cm long, 7-8 mm thick, concolorous with cap, darker toward the base, cylindric, irregularly shaped or flattened and with a furrow on two sides.

Cap surface not cellular.

Notes by Hesler

Spores 7-9 x 6-7.5 u, ellipsoid, warts 0.2-0.5 u high, bands and branches, and a few lines, forming a partial reticulum. Basidia 46-53 x 8-10 u, 4-spored. Pleurocystidia 52-73 x 5-7 u, slender-ventricose acuminate; cheilocystidia 27-33 x 3-5 u, subventricose. Pileus cuticle

van Waveren - a

L. decipiens - 2

(Tenn - 35534)

a distinct gelatinous to subgelatinous zone - an ixocutis; hypodermium obscure. Stipe a pale zone of repent, dry, perpendicular hyphae; rosettes present. Clamps none.

Neuhoff says pileus is lubricous (slippery).

van Waveren - b

LACTARIUS DECIPIENS, Quel.

(Color Photo)

In deciduous woods; in moss, Holland, Denekamp, July 31, 1966.

Notes by van Waveren

Pileus: the largest 5 cm broad, distinctly depressed, sometimes with a small umbo, pinkish pale brown to pinkish ocher, margin sometimes slightly striate-sulcate over a short distance. Context odor very marked of pelargonium. Latex abundant, white, somewhat acrid.

Gills very decurrent, pale pinkish ocher.

Stipe 2.5-4 cm long, 6-8 mm thick, apex same color as cap, increasingly darker towards base, flesh-color and the very base sometimes white tomentose.

Notes by Hesler

Micro characters as in van Waveren a (Tenn - 35534).

van Waveren - b

LACTARIUS DECIPIENS Quel

Tenn - 35535

In oak woods, Holland, Santpoort, September 30, 1966.

Notes by van Waveren

Pileus 4-6 cm, pale pinkish brown, (young: dark reddish brown), paler towards the margin, peripheral $2/3$ being more or less S 204, 205, 195, center darker, umbo rather indistinct. Latex fairly abundant, beautifully yellow on a white handkerchief. Odor strong of pelargonium.

Gills decurrent, color more or less S 199, more pinkish towards base (S 204).

Stem 4-8 cm, 10-14 mm, more orange than cap, paler towards apex.

Notes by Hesler

Micro characters as in van Waveren - a (Tenn - 35534).

Bas 911

LACTARIUS DECIPIENS Qué1.

Under oak (small pollarded densely planted trees), sandy humus,
Vogelenzang, Holland, October 15, 1955.

Notes by Bas (Transl. by Donk)

Cap -- 55 mm, shallow to deep cup - to funnel-shaped, margin bent downward, with or without a small pointed umbo, pale flesh-colored pink (brownish), or pale brownish salmon flesh colored pink, usually somewhat darker at center, appearing felted but under lens not so, margin occasionally slightly grooved, faintly radially vein-like ribbed. Context pale brownish pink, tardily yellow where cut; odor intermediate between bugs and pelargonium. Latex white, on gills almost not discoloring, but on flesh, tissue and journal paper bright yellow, tardily sharp.

Gills pale ocher tinted flesh color pink becoming darker and somewhat brownish, with rusty spots.

Stalk 80 x 6 mm, also 55 x 14 mm, cylindric or tapering downward, at first concolor with cap with paler top, then from base upward much darker flesh-color brown.

Spores with rather thick reticulate raised lines as in fig. of K and R.

Notes by Hesler

Spores 7-9 x 55.5-7.5 u, warts 0.2-0.5u, some isolated, bands and branches forming a partial reticulum. Pleurocystidia 52-78 x 5-7 u,

Bas 911

L. decipiens - 2

slender ventricose, scattered; pseudocystidia filamentous, 2.5-5 u broad; cheilocystidia 34-42 x 3-5 u, similar. Pileus cuticle a rather thin (35-50 u) ixocutis, the hyphae interwoven to near an isolattice; hypoderm brown. Stipe cuticle repent, dry; rosettes present.

Bas-2377

LACTARIUS DECIPIENS Quel.

Under Quercus and Alnus on clay soil, Holland, leg.-det. Bas,

September 20, 1961

Notes by Bas

(Translated by M. A. Donk)

Pileus flesh-colour-brown, margin flesh-colour-pink, not shining, not viscid, occasionally slight brownish zoned. Context taste acrid, odor soapy (rather than of Pelargonium). Latex white, quickly and strongly yellow (also on flesh).

Gills pale flesh-colored-pink (more or less subdistant).

Stipe pale flesh-colored-pink.

Spores more or less reticulated. Cutis of cap not cellular.

Notes by Hesler

Spores 7-9 x 5.5-7.5 μ , warts 0.2-0.5 μ . Pleurocystidia 46-58 x 5-7 μ , subventricose, buried, inconspicuous; cheilocystidia 24-30 x 3-5 μ , subventricose. Pileus and stipe cuticles as in Bas-2473.

Bas - 2473

LACTARIUS DECIPiens Quel

Under Quercus, in dry dunes, among mosses, and ~~at~~ scarce grasses, Vogeleennang, North Holland, leg.-det. C. Bas, October 5, 1961

Notes by Bas

(Translated by M. A. Donk)

Pileus 26-30 mm, rather irregular, plano-convex, to not deeply funnel-shaped, without umbo, the margin remaining inrolled for a considerable time, when young dark-flesh-coloured red-brown, soon becoming paler flesh-coloured brown from margin inward, finally flesh-coloured pink-cream, remaining dark for a long time at the center, glabrous and smooth, not viscid, somewhat rugulose in age. Context pale foxy brown, especially at the periphery, discoloring yellow, in age darker red-brown at the base. Latex white, quickly and intensely turning yellow on paper, slowly on fruit body; taste acrid; odor similar to but not same as geranium (Pelargonium).

Lamellae rather narrow, only slightly crowded (nearly or quite subdistant - L.R.H.), pale flesh-coloured ochre.

Stipe 20-32 mm long, 5-7 mm thick, flesh-coloured pink, at first white pruinose, gradually from base upward muted vinaceous-red brown (hollow - L.R.H.).

Spores with delicate ornamentation, occasionally with small isolated warts, usually with delicate incomplete reticulum.

Notes by Hesler

Spores 7-9 x 5.5-7(7.5) μ , ellipsoid, warts ~~ϕ 0.2-0.5 μ~~ 0.2-0.5 μ high, bands and branches, and a few lines forming a partial reticulum. Basidia ~~44~~ 44-50 x 7-9 μ , 4-spored. Pleurocystidia 52-78 x 5-7 μ , ventricose,

rather numerous and conspicuous; pseudocystidia filamentous; cheilocystidia 26-42 x 3-5 μ , subventricose. Gill trama of interwoven hyphae. Pileus cuticle a colorless, subgelatinous zone, 50-60 μ thick, the hyphae interwoven with the terminal elements as ventricose pileocystidia, 23-28 x 4-6 μ ; hypodermium none. Stipe cuticle a zone 50-60 μ thick, of dry, perpendicular, repent, narrow (1-2.5 μ thick) hyphae, the zone resting on a brown hypodermium 35-40 μ thick; rosettes present. Clamp connections none.

Near L. hepaticus in which the gills are close to crowded, the pleurocystidia large (62-103 x 6-10 μ) and conspicuous.

Pactarius decipiens Quel.

file

Bas - 2473

Croci



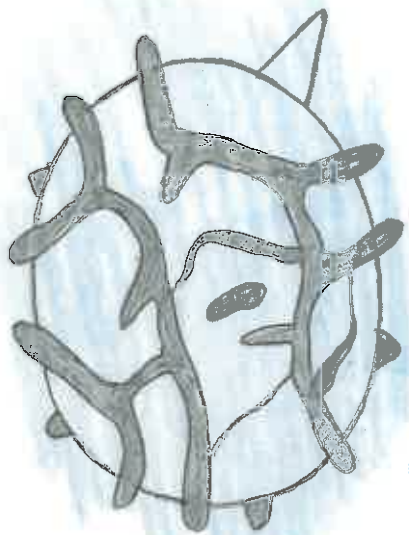
Pl - x 1000



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~~Pl~~ Piles - x 1000



224

Spore - x 8000

Bas - 2837

LACTARIUS DECIPIENS Quel

Gimburg, Holland, October 7, 1962, near Quercus

Notes by Bas

Odor of Pelargonium. Latex quickly yellow.

Notes by Hesler

Micro characters as in Bas - 911.